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Meeting Notes 2001-04-12 [Part B]

Joint Policy Advisory Committee on Transportation

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METRO
RTP Acknowledgement

Supplemental Exhibits
to Ordinance No. 00-869A, Adopting the 2000 RTP

Exhibit 'A' - Proposed Amendments to General TPR Findings

- ☐ *Supplemental Findings on OAR 660-12-0025(3) - Complete Refinement Plans within 3 years of TSP Adoption*
- ☐ *Supplemental Findings on OAR 660-12-0035(5) and (6) - Supplemental Findings on Non-Single Occupancy Vehicle Targets*
- ☐ *Supplemental Findings on OAR 660-012-0035(6) - Measurable Objectives*
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Exhibit 'B' - Proposed RTP Amendments

- ☐ *Section 6.7.1 - Role of RTP and the Decision to Proceed with Project Development*
- ☐ *Section 6.7.4 - Refinement Planning Scope and Responsibilities*
- ☐ *Section 6.7.5 - Minor Corridor Refinements (including Sunrise and I-5 to 99W corridors)*
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Exhibit 'C' - Proposed Amendments to I-5 to 99W Corridor Findings

- ☐ *Supplemental Finding on OAR 660-012-0070 - Exceptions for Projects on Rural Lands*

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- ☐ *Supplemental Finding on OAR 660-012-0070 - Exceptions for Projects on Rural Lands*

**Proposed Amendments to TPR Findings
Ordinance No. 00-869A**

**Exhibit 'A'
Supplemental Findings of Compliance
with the Oregon Transportation Planning Rule**

Supplemental Findings on OAR 660-12-0025(3) - Refinement Plans

Section 660-12-0025 requires refinement planning to be completed within 3 years of TSP adoption. The RTP calls for 16 refinement plans, all of which affect ODOT facilities. Given the financial resources of ODOT and Metro and scope of these studies, it is unlikely that that could be completed in the time frame called for in the transportation planning rule. Further, the state of transportation finance would make it difficult to fund any of the needed improvements that might be identified through refinement planning in the immediate future, raising the argument that actually completing refinement plans may be premature in a number of corridors. Therefore, Metro has proposed that the rule be amended to accommodate the RTP by accepting an action plan for completing the identified refinement planning during the 20-year plan period.

Metro is currently in the process of developing such a plan, and will incorporate the prioritized schedule of corridor refinement plans into the RTP Appendix. The action plan will be proposed for adoption by JPACT and the Metro Council as part of the Unified Work Program (UWP), thus providing opportunity for affected jurisdictions in the Metro region to comment on the proposed timing.

Supplemental Findings on OAR 660-12-0035(5) and (6) - Non-SOV Targets

Alternative Standard

For the purpose of the TPR, the 2040 Growth Concept serves as the integrated land use plan, pursuant to Section 660-12-0035(5)(c). In implementing the 2040 Growth Concept the RTP includes modal targets as the primary "alternative" standard for evaluating the effectiveness of the plan. In addition, Policy 19 establishes eight regional objectives for transportation demand management (TDM) in the region, and the Metropolitan Transportation Improvement Program (MTIP) is the region's tool for funding the TDM program, as well as other RTP initiatives. During the previous MTIP cycles, funds have been allocated to support the regional TDM clearinghouse housed at Tri-Met, as well as startup funds for a number of new transportation management associations (TMAs). The RTP priority system also includes further TMAs for the central city and all 2040 regional center and employment areas, making these places the focus for future MTIP allocations.

The transportation benchmarks being developed as part of Title 9, and in draft form include a broad range of measures that will track the success of the MTIP program in funding alternative mode projects intended to reduce reliance on the automobile. These

draft measures include tracking statistics on the number of transit, bicycle, pedestrian, boulevard and TDM projects funded through the MTIP, ongoing completion of the region pedestrian, bikeway and boulevard systems and share of non-auto projects funded through the MTIP as a percentage of total funds allocated. These measures will be the basis for demonstrating compliance with this section of the TPR.

Section 6.6.3 of the RTP also establishes congestion management criteria for roadway improvements to ensure that their effects are consistent with achieving the adopted strategy for reduced reliance on the automobile, consistent with OAR 660-12-0035(5)(c). This section of the RTP applies to both development of the RTP and local TSPs and project development.

Modal Targets

The 2040 non-SOV targets were established as a mechanism to link our strategy of reducing reliance on the automobile by focusing growth in centers and corridors that are easily served by alternative modes of travel. This is a basic construct of the 2040 Growth Concept, and was fundamental to the shaping of the RTP. The targets are also keyed to observed travel behavior, as collected in our 1994-95 survey of more than 7,500 households in the metro region.

The survey data suggest that the shared ride and bicycle alternatives to driving are the least responsive to integrated land use and transportation planning. For shared ride travel, this is due to the complexity of trip-making, and social factors that limit the potential for non-family shared ride arrangements, and is borne out in other studies of shared ride potential. For bicycle travel, the RTP has focused on providing improved bicycle facilities with the recognition that this is a niche form of travel that appeals to a limited segment of the population due to the skill levels required to commute by bike, special riding gear and because trip length is universal to all land use patterns.

Transit and walking are the most promising alternative to driving, as they already serve as the most popular alternatives today, and can be directly encouraged through land use planning. Transit ridership is highly dependent on convenient, affordable, timely service, which is why the RTP proposes nearly tripling the current transit service that is available today. Walking is especially attractive in the context of compact communities, as envisioned in the 2040 Growth Concept. The RTP addresses walking by proposing a broad range of pedestrian improvements, and full-street "boulevard" retrofits in centers and main streets. While we expect significant increases in both in the future, only the transit share can make a dent in our longer trip patterns, so we are very dependent on a big increase in transit use, which is why the transit element to the plan is nearly half the total cost

For each of these alternative modes, the RTP made specific modeling assumptions to mirror the expected improvements proposed in the RTP. For transit, the RTP modeling assumes fareless squares in all regional centers, as well as the central city, and varying levels of parking cost in most centers. The RTP also assumes reduced fare programs for

all trips destined for the central city, regional centers and other areas that are currently targeted for TDM programs.

For pedestrian improvements, the RTP uses a modeling surrogate of intersection density that the travel survey has demonstrated to be a reliable prediction of pedestrian travel. Using this surrogate, the RTP modeling has assumed concentrated pedestrian improvements in the central city, regional and town centers, station communities and main streets.

Given these travel survey indicators, and the modeling assumptions that we have built around them, our experience indicates that any improvement in non-SOV travel is significant, and that the targets in the RTP represent a very aggressive long term goal for the Metro region. Indeed, these were among the most controversial elements of the new plan.

Currently, progress toward our non-SOV targets is an output of our regional demand model, but cannot be generated by local jurisdictions. Therefore, Metro will use the modeling assumptions described above (shown in Attachment 1 to this exhibit) as a "checklist" to ensure that the actions called for in local TSPs are generally consistent with the model assumptions we made to reach our targets. The "progress toward" language is critical in this regard, since some jurisdictions have already met the targets in the most developed areas, while emerging centers are many years from approaching the targets, and development in these areas will likely occur unevenly. Though the modeling assumptions in Attachment 1 are tailored to such differences, establishing varying tiers among land use types based on degree of urbanization, there are still significant differences within tiers. Also, Section 6.7.7 of the RTP already places a number of very specific requirements on the local TSPs that are part of the effort to work toward the targets, and will ensure that needed actions are included in local plans.

Metro's primary goal is to ensure that the planning programs be adopted, and that on-the-ground progress be demonstrated over time. This is also an area that we would periodically evaluate during RTP updates."

Supplemental Findings on OAR 660-012-0035(6) - Measurable Objectives

Metro has proposed an update to the TPR to make the measures of average vehicle occupancy and trip length optional, given that these measures are not the most appropriate for evaluating plan performance or the success of an integrated land use and transportation plan.

While Metro has gathered this information from the regional travel demand model, it is not particularly useful to set objectives for these measures, since vehicle occupancy appears to be more driven by demographics, family size, and school-age vs. aging populations than by our transportation policy. Metro's shared ride survey data show a flat line for most areas, and little relationship between mixed-use land use planning and increases in shared ride as a percentage of travel. With the exception of TDM programs

that help coordinate shared ride, the experience in the Metro region is that most factors in encouraging shared ride significantly beyond levels that already exist are outside the scope of public policy.

The trip length statistic has also proven to be of limited use, since trip purposes are changing rapidly, and non-work trips have become the large majority. In the Metro region, the greatest increase in trip length involves trips from outside the region. These trips are a response to the increasing growth in employment in regional centers and employment centers outside the traditional central city. While these new centers of activity may result in shorter trip lengths within the Metro region, they also result in longer rural trips from outside the region, and effect that is outside the scope of the RTP.

Supplemental Finding on OAR 660-12-0035(7) - Interim Benchmarks

This requirement is addressed by Title 9 of Metro's Urban Growth Management Functional Plan (UGMFP). The intent of Title 9 is to monitor progress in implementation of the 2040 Growth Concept with measurable objectives that relate expected outcomes to observed data. Because of Metro's unique role in regional planning, our performance measures in this section of the UGMFP address a broad array of urban issue, including transportation. Therefore, we have not confined benchmarks for transportation issues to the RTP, and instead have related these measures to other indicators of regional livability.

Metro is currently in the process of developing these benchmarks on a parallel track to the RTP which will result in an RTP amendment in 2002. Metro has proposed that this compliance issue be continued until the Title 9 benchmarks are complete, and the new measures are incorporated into the RTP. At this time, nearly three dozen transportation benchmarks have been developed and ranked, and the most promising measures are being evaluated according to the relative value, ease and cost of monitoring. These measures will likely be monitored at two-year intervals, which exceeds the TPR requirement of five-year intervals for collecting data.

Supplemental Finding on OAR 660-12-0045(5) - Implementation

The following are supplemental findings on whether the requirements of this section will be addressed at the regional and local levels:

(a) Allow transit oriented developments on lands along transit routes.

This requirement is addressed through local adoption of comprehensive plan and zoning amendments that implement the 2040 Growth Concept. The Growth Concept includes transit-oriented land use components along all regional transit routes, which encompasses most major streets in the region. Title 1 of the Urban Growth Management Functional Plan is Metro's ordinance for this local requirement.

(b) Implement a demand management program to meet the RTP modal targets.

The regional demand management policies and objectives (Policy 19) in the RTP are

the guiding criteria for implementing the regional TDM program. The program is administered by Tri-Met, and funded through Metro's MTIP. Ongoing oversight of the regional TDM program is conducted by the TDM Subcommittee, a standing committee of Metro's Transportation Policy Alternatives Committee. The TDM subcommittee recommends funding for TDM projects, including the regional TDM program and periodic transportation management association (TMA) startups and maintenance. Local jurisdictions are eligible to apply for TDM funds through the MTIP process, and their applications are evaluated, in part, by a foundation for local TDM programs in their local TSP.

(d) Implement a regional parking plan.

Title 2 of Metro's Urban Growth Management Functional Plan (UGMFP) sets local requirements for local parking maximum and minimum standards, and other parking provisions, consistent with Section 660-12-0045(d). Title 2 was originally adopted in 1997, and the 2000 RTP ordinance included amendments that reflect 1998 TPR amendments, including provisions for parking lot design, residential parking districts and new definitions.

(e) Require transit stops at major developments.

The RTP Regional Public Transportation System map (Figure 1.16) includes light rail stations and major bus stops that must be incorporated into local TSPs. These stops are defined along the regional transit system, through a combination of factors, including past ridership performance, planned land uses and planned transit service. Local jurisdictions are required by Section 6.4.10 of the RTP to include these stations and stops in local TSP, and this section also includes additional transit stop design criteria, consistent with OAR 660-12-0045(e).

Supplemental Finding on OAR 660-012-0065 - Rural Projects

The following are findings of compliance for individual projects included in the RTP, and located on rural lands. For each project, the applicable TPR section is identified, and findings of compliance are shown in Table 2, below:

Table 2
660.012.0065 Findings for Projects on Rural Lands

No.	Description	Applicable TPR Section	Findings of Compliance
3110	Jackson School Road Improvements Reconfigure Intersection at Highway 26 to restrict turn movements and cross intersection travel	660.012.0065(3)(c)	This is a channelization project on Highway 26 that will result in a median that restricts turn movements for safety purposes. It is proposed within the existing alignment of Highway 26.
3158	Forest Grove to US 26 Improvements Realign Martin Road and Cornelius-Schefflin road with widened paved shoulders to improve safety	660.012.0065(3)(d)	This is a realignment project of a rural road that includes a standard striped bicycle and pedestrian shoulder. It is proposed within the existing alignment of the existing right-of-way, or extended beyond the existing right-of-way where necessary to provide a safe horizontal curvature of the realigned road.

No.	Description	Applicable TPR Section	Findings of Compliance
3160	Verboort Road Intersection Improvements Signalize intersection at Highway 47 to improve safety	660.012.0065(3)(o)	This is a minor intersection improvement needed to provide continued safe access from the Verboort rural community to Highway 47, which serves as the farm to market route in this part of the region. It is proposed within the existing alignment of Highway 47.
5030	Highway 213 Green Corridor Plan	Exception issues raised by DLCD staff	Green Corridor plans are intergovernmental agreements for preserving rural land uses along heavily-traveled rural highways outside the Metro region. Actions recommended in these IGA are limited, by definition, to allowed rural uses, and findings on applicable TPR requirements would be made in rural TSPs. Green Corridors are acknowledged as part of the 2040 Growth Concept.
5203	Stafford Road Improvements – project realigns intersection and adds traffic signal and left turn lanes	660.012.0065(3)(d), (o)	This is a minor intersection improvement needed to provide continued safe access from the Stafford basin rural community to Interstate-205 and Lake Oswego via Stafford Road, which serves as the farm to market route in this part of the region. It is proposed within the existing alignment of Stafford Road.
6097	Stafford Road Safety Improvements This project addresses safety issues from I-205 to Boeckman Road.	660.012.0065(3)(o)	These is are a series of minor intersection and sight distance improvements needed to provide continued safe access from the Stafford basin rural community to Interstate-205 and Interstate-5 via Stafford Road, which serves as the farm to market route in this part of the region. These improvements are proposed within the existing alignment of Stafford Road.
6109	Beef Bend 175 th Realign Intersection to eliminate offset	660.012.0065(3)(d), (o)	This intersection improvement is needed to correct a dangerous offset of rural road intersections. It is largely proposed within the existing alignments of Beef Bend and 175th Avenues, except where needed to align the streets.
6111	Beef Bend Elsner Road Extension Two lane realignment of Scholls Ferry to 99W with limited access	Exception issues raised by DLCD staff	Washington County has already prepared exception findings for this project.

Exhibit 'B'

Proposed Amendments to the 2000 Regional Transportation Plan Adopted by Ordinance No. 00-869A

6.7 Project Development and Refinement Planning

6.7.1 Role of RTP and the Decision to Proceed with Project Development

Metro is the regional planning agency for the metropolitan area. Metro does not complete local transportation system plans, engineer or build transportation facilities or permit land uses or transportation projects. These activities occur at the local level. After a project has been incorporated in the RTP, it is the responsibility of the local sponsoring jurisdiction to determine the details of the project (design, operations, etc.) and The local jurisdiction responsible for the applicable local transportation system plan shall reach a decision on whether to build the improvement based upon detailed environmental impact analysis, adoption of actions to mitigate impacts and findings demonstrating consistency with applicable comprehensive plans and statewide planning goals. If this process results in a decision not to build the project, the RTP will be amended to delete the recommended improvement and an alternative must be identified to address the original transportation need.

6.7.4 Refinement Planning Scope and Responsibilities

In some areas defined in this section, the need for refinement planning is warranted before specific projects or actions that meet and identified need can be adopted into the RTP. Refinement plans generally involve a combination of transportation and land use analysis, multiple local jurisdictions and facilities operated by multiple transportation providers. Therefore, unless otherwise specified in this section, Metro or ODOT will initiate and lead necessary refinement planning in coordination with other affected local, regional and state agencies.

Refinement planning efforts will be multi-modal evaluations of possible transportation solutions in response to needs identified in the RTP. ~~The evaluation may also include~~ land use alternatives to fully address transportation needs in these corridors and to addressing consistency with applicable statewide planning goals. Refinement plans fall into two broad groups of scope and complexity:

- Minor corridor refinements are necessary where both the need and mode for a transportation improvement are identified in the RTP, but a specific project has not been identified.
- Major corridor refinements are necessary where a transportation need exists, but mode, function and general location of a transportation improvement are

not determined, and a range of actions must be considered prior to identifying specific projects.

Appendix 3.1 describes the 2000 RTP prioritization for refinement plans. Refinement plan prioritization and specific scope for each corridor is subject to annual updates as part of the Unified Work Plan (UWP).

6.7.5 Specific-Minor Corridor Refinements

The system analysis in Chapter 3 identifies a number of corridor refinement studies that must be completed before specific transportation solutions can be adopted into the RTP. In these corridors, both the need for transportation improvements, and a recommended action have been determined. Minor corridor refinements will be conducted by state or regional agencies working in partnership with local governments in the following areas. In each case, a transportation need has been established by the RTP, and in some cases, mode, function or general location may be determined or the decision on these elements narrowed at the TSP level to focus the refinement planning work. A transportation need is identified when regional standards for safety, mobility, or congestion are exceeded. In many of these corridors, RTP analysis indicates several standards are exceeded.

The purpose of the minor corridor refinement process is to identify specific projects consistent with the identified need, mode and general corridor. At this stage, These proposed transportation projects must be developed to a more detailed level before construction can occur. This process is described in Section 6.7.3 of this chapter. For minor refinement planning in corridors located outside the UGB, this work shall also address relevant statewide planning goal exception requirements pursuant to Section 660.012.0070 of the state transportation planning rule. These findings shall expand on exceptions findings made as part of the 2000 RTP adoption ordinance, but address more localized issues relevant to the refinement level of planning. The specific project recommendations from major corridor studies are then incorporated into the RTP, as appropriate.

Because minor corridor refinements are more specific in location and mode, local TSPs shall consider measures to protect future right-of-way options within the affected corridors. Likewise, the refinement planning process shall make recommendations for corridor preservation or right-of-way acquisition strategies to ensure that final project recommendations are not precluded by land use decisions within the corridor.

The project development stage determines design details, and a project location or alignment, if necessary, after evaluating engineering and design details, and environmental impacts. While all projects in this plan must follow this process before construction can occur, the following projects must also consider the design elements described in this section:

Sunrise Corridor

The full Sunrise Corridor improvement from I-205 to Highway 26 is needed during the 20-year plan period, but should be implemented with a design and phasing that reinforces development of the Damascus town center, and protect rural reserves from urban traffic impacts. This corridor includes rural areas outside the Metro area UGB. Impacts on rural resources in these areas shall be addressed through statewide planning goal exception findings that expand on findings already adopted in the 2000 RTP, pursuant to Section 660.012.0070 of the state transportation planning rule.

Though a draft environmental impact statement has been prepared for this corridor, the final environmental impact statement should be refined to consider the following design elements:

- Construct the segment from I-205/Highway 224 interchange to existing Highway 212 at Rock Creek as funds become available
- preserve right-of-way (ROW) from Rock Creek to Highway 26 as funds become available
- consider phasing Sunrise construction as follows: (a) complete I-205 to Rock Creek segment first, followed by (b) ROW acquisition of remaining segments, then (c) construction of 222nd Avenue to Highway 26 segment and (d) lastly, construction of middle segment from Rock Creek to 222nd Avenue as Damascus town center develops
- consider express, peak period pricing and HOV lanes as phases of the Sunrise Corridor are constructed
- reflect planned network of streets in Damascus/Pleasant Valley area in refined interchange locations along the Sunrise Route, including a connection at 172nd Avenue, the proposed major north/south route in the area
- implement bus service in parallel corridor from Damascus to Clackamas regional center via Sunnyside Road
- avoid premature construction that could unintentionally increase urban pressures in rural reserves east of Damascus
- examine the potential for the highway to serve as a "hard edge" in the ultimate urban form of the Damascus area
- develop a concurrent plan to transition the function of the existing Highway 212 facility into a major arterial function, with appropriate access management and intersection treatments identified

- pursue a Green Corridor IGA for the Sunrise Corridor from Damascus town center to US 26, with the specific western terminus for the IGA flexible to future expansion of the UGB.

I-5 to 99W Connector

An improved regional connection between Highway 99W and I-5 is needed in the Tualatin area to accommodate regional traffic, and to move it away from the Tualatin, Sherwood and Tigard town centers. The RTP has narrowed the corridor to include two alternatives that depart from I-5 in the same general corridor, but split to form northern and southern alignments, relative to the City of Sherwood. Impacts on rural resources in both alignments of this corridor shall be addressed through statewide planning goal exception findings that expand on findings already adopted in the 2000 RTP, pursuant to Section 660.012.0070 of the state transportation planning rule. This connection will also have significant effects on urban form in this rapidly growing area, and the following design considerations should be addressed in a corridor plan:

- balance improvement plans with impacts on Tualatin and Sherwood town centers and adjacent rural reserves
- in addition to the northern alignment considered in the Western Bypass Study, examine the benefits of a southern alignment, located along the southern edge of Tualatin and Sherwood, including the accompanying improvements to 99W that would be required with either alignment
- identify parallel capacity improvements to Tualatin-Sherwood Road and 99W in Tigard from I-5 to Highway 217 that could be used to phase in, and eventually complement future highway improvements
- link urban growth boundary expansion in this area to the corridor plan and examine potential the proposed highway to serve as a "hard edge" in the ultimate urban form of the Sherwood area
- develop an access management and connectivity plan for 99W in the Tigard area that balances accessibility needs with physical and economic constraints that limit the ability to expand capacity in this area
- consider express, peak-period pricing and HOV lanes
- pursue a Green Corridor IGA for the connector and Highway 99W south of the connector.

6.7.6 - Specific Major Corridor Studies Refinements

Major corridor studies refinements will be conducted by state or regional agencies working in partnership with local governments in the following areas. In each case, a

transportation need has been established by the RTP, and in some cases, mode, function or general location may be determined or the decision on these elements narrowed at the TSP level to focus the refinement planning work. A transportation need is identified when regional standards for safety, mobility, or congestion are exceeded. In many of these corridors, RTP analysis indicates several standards are exceeded.

The purpose of the major corridor studies refinements is to develop an appropriate transportation strategy or solution through the corridor planning process that determines mode, function and general location of a project or set of projects. For each corridor, a number of transportation alternatives will be examined over a broad geographic area or through a local TSP to determine a recommended set of projects, actions or strategies that meet the identified need. This section of the RTP also identifies a number of corridor planning issues that shall be addressed as part of the refinement planning process.

For refinement planning in corridors located outside the UGB, this work shall also address relevant statewide planning goal exception requirements pursuant to Section 660.012.0070 of the state transportation planning rule. These findings shall expand on exceptions findings made as part of the 2000 RTP adoption ordinance, but address more localized issues relevant to the refinement level of planning.

The specific project recommendations from major corridor studies are then incorporated into the RTP, as appropriate. This section contains the following specific considerations that must be incorporated into corridor studies as they occur:
[description of major corridor refinements follows]

Chapter 5 and Appendix 1.1 Revisions

Revise the following projects in the Chapter 5 Priority System maps and project descriptions and in the Appendix 1.1 project matrix, as follows in Tables 3 and 4:

Table 3
Rural Projects and Studies with Proposed Map Revisions in Chapters 1 and 5

No.	Project Description	Project Issue	Proposed RTP Text and Map Revisions
2004	Hogan Corridor Improvements Construct a new four-lane principal arterial from Project	Identified by DLCD staff as Possible Goal Exception	Modify project description and maps to show corridor within UGB
7013	Foster Road Corridor Plan	Clarification sought by DLCD staff	Redefine corridor definition to Foster/Powell from Pleasant Valley town center to Portland Central City
7021	Hogan/242 nd Corridor Plan Palmquist Road to US-26. (2000-2005)	Future Plan	Modify project description and maps to show corridor within UGB
5030	Beavercreek Phase 3 Widens to 4 lanes – project extends outside the UGB to Henrici Street	Possible Goal Exception	Modify project description and maps to show corridor within UGB
6000	Beaverton-Wilsonville Commuter Rail	Permitted on existing corridor	Redefine corridor definition to existing rail corridor
6002	Wilsonville-Salem Commuter Rail Study to extend commuter rail service from Wilsonville to Salem using existing railroad tracks.	Permitted on existing corridor	Redefine corridor definition to existing rail corridor

No.	Project Description	Project Issue	Proposed RTP Revision
6090	Boeckman Road Extension 3 lane extension to Grahams Ferry extends outside UGB	Possible Goal Exception	Modify project description and maps to show project within UGB
6113	Oregon Street Improvements – Widen the street to three lanes from Tualatin Sherwood Road to Murlock Street add traffic signal at Tualatin Sherwood Road.	065 Findings/ Possible Exception	Clarify that project is within the UGB on maps and in project description

Table 4
Rural Projects and Studies Proposed for Deletion from RTP

No.	Project Description	Project Issue	Proposed RTP Revision
3122	St. Mary's Urban Reserve Future Street Plan	Future Plan	Drop project from RTP
3218	Cornelius Pass Road Extension Construct a three lane extension from TV Highway to 209 th Avenue (in St. Mary's Urban Reserve Area)	065 Findings	Drop project from RTP
7014	Damascus/Pleasant Valley Future Street Plan	Future Plan	Drop project from RTP
5215	Beavercreek Future Street Plan	Future Plan	Drop project from RTP



METRO

Attachment 1
2000 Regional Transportation Plan
Transportation Analysis Zone Assumptions
and Non-SOV Modal Performance

2040 Grouping	2040 Group Characteristics	2020 Intersection Density (connections per mile)			2020 Parking Factors (indexed to CBD in '94 dollars)			2020 Transit Pass Factor (% of Full Fare)			2020 Fareless Areas (for internal trips)			Non-SOV Modal Performance (combined share of non-SOV trips to, from and within 2040 grouping)		
		P	S	FC	P	S	FC	P	S	FC	P	S	FC	1994	2020 Preferred System	2020 Priority System
Central City 1 Downtown Business District	Highest planned employment and housing density in the region, with highest level of access by all modes. LRT exists and current land uses reflect planned mix and densities.	20	20	20	6.08	6.08	6.08	60%	60%	60%	X	X	X	48%	67%	67%
Central City 2 Lloyd District	Highest planned employment and housing density in the region, with highest level of access by all modes. LRT exists and current land uses reflect planned mix and densities.	20	20	20	3.94	3.94	3.94	60%	60%	60%	X	X	X	34%	46%	46%
Central City 3 Central Eastside Industrial District	Planned high employment and housing density, with highest level of access by all modes. LRT exists and current land uses do not reflect planned mix and densities.	20	20	20	2.96	2.96	2.96	65%	65%	65%	X	X		32%	43%	42%

2040 Grouping	Group Characteristics	Intersection Density			Parking Factors			Transit Pass Factor			Fareless Areas			Non-SOV Modal Performance (combined share of non-SOV trips to, from and within 2040 grouping)		
		P	S	FC	P	S	FC	P	S	FC	P	S	FC	1994	2020 Preferred System	2020 Priority System
Central City 4 River District and Northwest	Planned high employment and housing density, with highest level of access by all modes. LRT exists and current land uses approach planned mix and densities.	20	20	20	3.94	3.94	3.94	65%	65%	65%	X	X		37%	57%	57%
Central City 5 North Macadam District	Planned high employment and housing density, with highest level of access by all modes. LRT exists and current land uses do not reflect planned mix and densities.	18	18	18	3.04	3.04	3.04	65%	65%	65%	X	X		22%	42%	42%
Regional Centers - Tier 1 Gresham Gateway Beaverton Hillsboro	Planned high employment and housing density, with highest level of access by all modes. LRT exists and current land uses approach planned mix and densities.	>16	>16	>14	1.60	1.20	0.80	70%	75%	80%	X	X	X	32%	40%	39%
Regional Centers - Tier 2 Washington Square Milwaukie Clackamas Oregon City	Planned high employment and housing density, with highest level of access by all modes; planned LRT. Current land uses do not reflect planned mix and densities.	>12	>12	>10	1.22	0.92	0.60	85%	90%	95%	X	X		31%	34%	34%
Station Communities Tier 1 Banfield Corridor Westside Corridor	High housing density mixed with commercial services; highest level of access for transit, bike and walk; existing LRT.	>16	>14	>12	1.60	1.20	0.80	70%	75%	80%				35%	42%	41%

2040 Grouping	Group Characteristics	Intersection Density			Parking Factors			Transit Pass Factor			Fareless Areas			Non-SOV Modal Performance (combined share of non-SOV trips to, from and within 2040 grouping)		
		P	S	FC	P	S	FC	P	S	FC	P	S	FC	1994	2020 Preferred System	2020 Priority System
Station Communities Tier 2 South/North Corridor	Planned high housing density mixed with commercial services, with high level of transit, bike and walk; planned LRT. Current land uses do not reflect planned mix and densities.	>12	>12	>10	1.22	0.92	0.60	85%	90%	95%				36%	42%	42%
Town Centers - Tier 1 St. Johns Hollywood Lents Rockwood Lake Oswego Tualatin Forest Grove	Moderate housing and employment density planned, with high level of access by all modes. Currently has good mix of uses, well connected street system and good transit.	>16	>16	>16	0.90	0.68	0.45	75%	80%	85%				35%	40%	40%
Town Centers - Tier 2 West Portland Raleigh Hills Hillsdale Gladstone West Linn Sherwood Sunset Wilsonville Cornelius Oreco	Moderate housing and employment density planned, with high level of access by all modes. Currently has some mix of uses, moderately connected street system and some transit. Existing topography or physical barriers may limit bike and pedestrian travel.	>12	>12	>10	0.72	0.54	0.36	90%	95%	100%				32%	37%	37%
Town Centers - Tier 3 Fairview/Wood Village Troutdale Happy Valley Lake Grove Farmington Cedar Mill Tannasbourne	Moderate housing and employment density planned, with high level of access by all modes. Currently has modest mix of uses, poorly connected street system and poor transit. Existing topography or physical barriers may limit bike and pedestrian travel.	>10	>10	>8	0.55	0.41	0.28	100%	100%	100%				34%	37%	36%

2040 Grouping	Group Characteristics	Intersection Density			Parking Factors			Transit Pass Factor			Fareless Areas			Non-SOV Modal Performance (combined share of non-SOV trips to, from and within 2040 grouping)		
		P	S	FC	P	S	FC	P	S	FC	P	S	FC	1994	2020 Preferred System	2020 Priority System
Town Centers - Tier 4 Pleasant Valley Damascus Bethany Murrayhill	Moderate housing and employment density planned, with high level of access by all modes. Currently undeveloped or developing urban uses, with skeletal street system and poor transit. Existing topography or physical barriers may limit bike and pedestrian travel.	>8	>8	>8	0.36	0.27	0.18	100%	100%	100%				37%	40%	39%
Mainstreets - Tier 1 Eastside Portland to 60th	Moderate housing and employment density planned, with high level of access by all modes. Currently has good mix of uses, well connected street system and good transit.	>16	>16	>14	0.90	0.68	0.45	100%	100%	100%				40%	45%	45%
Mainstreets - Tier 2 Remaining Region	Moderate housing and employment density planned, with high level of access by all modes. Currently has some mix of uses, moderate connectivity and some transit.	>12	>10	>8	0.72	0.54	0.36	100%	100%	100%				38%	43%	43%

2040 Grouping	Group Characteristics	Intersection Density			Parking Factors			Transit Pass Factor			Fareless Areas			Non-SOV Modal Performance (combined share of non-SOV trips to, from and within 2040 grouping)		
		P	S	FC	P	S	FC	P	S	FC	P	S	FC	1994	2020 Preferred System	2020 Priority System
Corridors <i>Full Region</i>	<i>Moderate housing and employment density planned, with high level of access by all modes. Currently has modest mix of uses, moderate connectivity and some transit.</i>	>10	>10	>10	None	None	None	100%	100%	100%				36%	39%	39%
Inner Neighborhoods <i>Full Region</i>	<i>Low density housing planned, with moderate level of access by all modes. Currently has moderate connectivity and some transit.</i>	>10	>10	>10	None	None	None	100%	100%	100%				39%	42%	42%
Outer Neighborhoods - Tier 1 <i>Current Urban Areas</i>	<i>Low density housing planned, with moderate level of access by all modes. Currently has poorly connected street system and little transit.</i>	>8	>8	>8	None	None	None	100%	100%	100%				37%	40%	39%
Outer Neighborhoods - Tier 2 <i>Urban Reserve Areas</i>	<i>Low density housing planned, with moderate level of access by all modes. Currently has skeletal street system and no transit.</i>	>6	>6	>6	None	None	None	100%	100%	100%				36%	39%	38%
Employment Areas <i>Full Region</i>	<i>Low density employment planned, with moderate level of access by all modes. Currently has poorly connected street system and limited transit.</i>	>8	>8	>8	None	None	None	100%	100%	100%				28%	30%	29%

2040 Grouping	Group Characteristics	Intersection Density			Parking Factors			Transit Pass Factor			Fareless Areas			Non-SOV Modal Performance (combined share of non-SOV trips to, from and within 2040 grouping)		
		P	S	FC	P	S	FC	P	S	FC	P	S	FC	1994	2020 Preferred System	2020 Priority System
Industrial Areas - Tier 1 Rivergate Swan Island Airport	Low density employment planned, with high level of access by rail and truck freight, and moderate access by other modes. Currently has somewhat connected street system and some transit.	>10	>10	>10	None	None	None	100%	100%	100%				26%	27%	27%
Industrial Areas - Tier 2 South Shore Clackamas Tualatin Beaverton Sunset	Low density employment planned, with high level of access by rail and truck freight, and moderate access by other modes. Currently has developing street system and poor transit.	>8	>8	>8	None	None	None	100%	100%	100%				28%	28%	28%
Greenspaces Same as Tier 2 Outer Neighborhoods.	Recreational uses are planned, with moderate level of access by all modes	>6	>6	>6	None	None	None	100%	100%	100%				n/a	n/a	n/a
Rural Reserves Same as Tier 2 Outer Neighborhoods.	Urban uses are not planned in the foreseeable future. Currently has skeletal street system and no transit.	>6	>6	>6	None	None	None	100%	100%	100%				34%	37%	37%
Special Area 1 Portland International Airport		*	*	*	6.14	6.14	6.14	60%	60%	60%				These places are relatively small geographic areas with special characteristics that make it difficult to determine actual non-SOV modal performance based on analysis of the regional model.		
Special Area 2 Oregon Health Sciences University		*	*	*	1.86	1.86	1.86	60%	60%	60%						
Special Area 3 Oregon Zoo		*	*	*	1.86	1.86	1.86	100%	100%	100%						
Special Area 4 SMART (Wilsonville)		*	*	*	*	*	*	*	*	*	X	X	X		*	*

* Use parent zone values.

8/10/00

RTP Appendix

Glossary of Transportation Definitions

Accessibility – The ability to move easily from one mode of transportation to another mode or to a given land-use destination. The more places that can be reached for a given cost, the greater the accessibility. Of equal importance is the quality of travel choices to a given destination. Accessibility is governed by both land-use patterns and the number of travel alternatives provided by the transportation system.

Access management – Measures regulating access to streets, roads and highways from public roads and private driveways. Measures may include but are not limited to restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and use of physical controls, such as signals and channelization including raised medians, to reduce impacts of approach road traffic on the main facility. The principles, laws and techniques used to control access off and onto streets, roads and highways from roads and driveways. One of the primary purposes of controlling access is to reduce conflicts between motor vehicles, pedestrians and bicyclists. Examples of access management include limiting or consolidating driveways, selectively prohibiting left-turn movements at and between intersections and using physical controls such as signals and raised medians.

Accessway – A walkway that provides pedestrian and or bicycle passage either between streets or from a street to a building or other destination such as a school, park, or transit stop. Accessways generally include a walkway and additional land on either side of the walkway, often in the form of an easement or right-of-way, to provide clearance and separation between the walkway and adjacent uses. Accessways through parking lots are generally physically separated from adjacent vehicle parking or parallel vehicle traffic by curbs or similar devices and include landscaping, trees and lighting. Where accessways cross driveways, they are generally raised, paved or marked in a manner which provides convenient access for pedestrians.

Affected local government – A city, county or metropolitan service district that is directly impacted by a proposed transportation facility or improvement.

Air quality conformity – This term refers to the Clean Air Act Amendments of 1990, which require the metropolitan region to document with computer modeling that regionally significant transportation projects, if built, would result in (1) automotive emissions lower than those estimated to have occurred in 1990 (2) lower emissions than would result without building the project and (3) total emissions lower than the “mobile source budget” adopted in the regional air quality maintenance plan.

Alternative transportation mode – This term refers to all passenger modes of travel except for single-occupancy vehicle, including bicycling, walking, public transportation, carpooling and vanpooling.

Advanced traffic management system (ATMS) – This term refers to traffic management techniques that use computer processing and communications technologies to optimize performance of motor vehicle, freight and public transportation systems. ATMS is a subset of intelligent transportation system (ITS) technologies and must be addressed as one of the 16 ISTEA planning factors.

Americans With Disabilities Act (ADA) of 1990 – Civil rights legislation enacted by Congress that mandates the development of a plan to address discrimination and equal opportunity for disabled persons in employment, transportation, public accommodation, public services and telecommunications. Tri-Met's ADA transportation plan outlined the requirements of the ADA as applied to Tri-Met services, the deficiencies of the existing services when compared to the requirements of the new act and the remedial measures necessary to bring Tri-Met and the region into compliance with the act. Metro, as the region's metropolitan planning organization (MPO) is required to review Tri-Met's ADA Para-transit Plan annually and certify that the plan conforms to the Regional Transportation Plan. Without this certification, Tri-Met cannot be found to be in compliance with the ADA. ADA also affects the design of pedestrian facilities being constructed by local governments.

Areas of special concern – Designated areas that are planned for mixed-use development, but are also characterized by physical, environmental or other constraints that limit the range of acceptable transportation solutions for addressing a level-of-service need, but where alternative routes for regional through-traffic are provided.

At or near a major transit stop – "At" means a parcel or ownership which is adjacent to or includes a major transit stop generally including portions of such parcels or ownerships that are within 200 feet of a transit stop. "Near" generally means a parcel or ownership that is within 300 feet of a major transit stop. The term "generally" is intended to allow local governments through their plans and ordinances to adopt more specific definitions of these terms considering local needs and circumstances consistent with the overall objective and requirement to provide convenient pedestrian access to transit.

Bicycle – A vehicle having two tandem wheels, a minimum of 14 inches in diameter, propelled solely by human power, upon which a person or persons may ride. A three-wheeled adult tricycle is considered a bicycle. In Oregon, a bicycle is legally defined as a vehicle. Bicyclists have the same right to the roadways and must obey the same traffic laws as the operators of other vehicles.

Bicycle facilities – A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking facilities, all bikeways and shared roadways not specifically designated for bicycle use.

Bike lane – A portion of a roadway that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

Bicycle network – A system of connected bikeways that provide access to and from local and regional destinations and to adjacent bicycle networks.

Bikeway – A bikeway is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds. On-road bikeways include shared roadway, shoulder bikeway, bike lane or bicycle boulevard design treatments. Another type of bikeway design treatment, the multi-use path, is separated from the roadway.

Boulevard intersections – Boulevard design classifications are usually focused on centers and some main streets where a pedestrian and transit-oriented street design can best complement dense development patterns. However, there many locations where corridors and some main streets intersect along major streets. At these intersections, the confluence of motor vehicle traffic must be managed to limit negative impacts on multi-modal travel and the development of planned land-uses. While boulevard intersections accommodate a significant amount of motor vehicle travel, they are designed with special amenities that promote pedestrian, bicycle and public transportation travel. Pedestrian improvements are substantial, including wide sidewalks, special lighting, crossings on all streets and special crossing features where unusually heavy motor vehicle traffic is present.

Branch railroad – Non-Class I rail lines.

Capacity – The maximum number of vehicles (vehicle capacity) or passengers (person capacity) that can pass over a given section of roadway or transit line in one or both directions during a given period of time under prevailing roadway and traffic conditions.

Citizen advisory committee (CAC) – Selected for a specific issue, project or process, a group of citizens volunteer and are appointed by Metro to represent citizen interests. The RTP citizen advisory committee reviews regional transportation issues.

Clean Air Act Amendments of 1990 – Amendments to the Clean Air Act which specify that no transportation project, whether federally or locally funded, may interfere with attainment or maintenance of federal air quality standards. With respect to transportation planning, this requirement means that the Federal Highway Administration and the Federal Transit Administration must affirm that all regionally significant transportation projects must be identified in the Metro Transportation Improvement Program and must be demonstrated to conform with the 1982 Oregon State (Air Quality) Implementation Plan (SIP). Note: The SIP is currently being amended to show Portland-area attainment of national air quality standards and methods adopted to maintain the standards for a 20-year period. EPA approval of the SIP amendment is expected in late 1997.

Closed-end street – A street that has only one egress to any other existing street or planned street identified in the local Transportation System Plan. Cul-de-sacs, dead-end and looped streets are examples of closed-end streets.

Collector of regional significance – This term refers to routes that connect the regional arterial system and the local collector system by collecting and distributing neighborhood traffic to arterials streets. Collectors of regional significance have three purposes. First, these facilities ensure adequate access to the primary and secondary land-use components of the 2040 Growth Concept. Second, collectors of regional significance allow dispersion of arterial traffic over a number of lesser facilities where an adequate local network exists. Third, collectors of regional significance help to define appropriate collector level movement between jurisdictions.

Community – For the purposes of the RTP, this term refers to informal subareas of the region, and may include one or more incorporated areas and adjacent unincorporated areas that share transportation facilities or other urban infrastructure. For example, references to the east Multnomah County community usually includes the cities of Gresham, Troutdale, Fairview and Wood Village and unincorporated areas that abut these jurisdictions (see “Regional”).

Community connector bikeway – These bikeways connector smaller town centers, main streets, station areas, industrial areas and other regional attractors to the regional bikeway system.

Connector roadway route – A road that connects freight facilities or freight generation areas to the main roadway route.

Congestion management system (CMS) – The CMS is one of the six management systems required by ISTEA. The CMS is to provide “information on transportation system performance and alternative strategies to alleviate congestion and enhance mobility.” A key provision of CMS is that consideration must be given to a variety of demand reduction and operational management strategies as alternatives to increases in single-occupant vehicle capacity when addressing deficiencies. This includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost-effective actions and evaluate the effectiveness of implemented actions.

Contiguous parcels – Parcels of land that are adjacent to one another; not separated by other parcels, public right-of-way or an easement that prevents construction of a street.

Density bonus – This term refers to allowing developers to build at higher densities than stated in local zoning code. This incentive is designed to promote more compact development, reduce trip lengths and promote alternative modes of travel.

Distribution facility – A facility where freight is reloaded from one land-based model to another for further distribution.

Employee Commute Options (ECO) Rule – The ECO Rule is part of House Bill 2214 adopted by the 1992 Oregon Legislature. The rule directs the Department of Environmental Quality to institute an employee trip reduction program. The rule is

designed to reduce 10 percent of commuter trips for all businesses that employ 50 or more persons at a single site.

Freight intermodal facility – An intercity facility where freight is transferred between two or more modes (e.g., truck to rail, rail to ship, truck to air, etc.)

Functional plan – A limited purpose multi-jurisdictional plan for an area or activity having significant district-wide impact upon the orderly and responsible development of the metropolitan area that serves as a guideline for local comprehensive plans consistent with ORS 268.390.

Greater metropolitan region – Defined as the greater area surrounding and including Metro’s jurisdictional area, including parts of Multnomah, Clackamas and Washington counties as well as urban areas in Marion, Columbia and Yamhill counties (see “Metropolitan Region”).

Growth Concept – A concept for the long-term growth management of our region, stating the preferred form of the regional growth and development, including if, where, and how much the urban growth boundary should be expanded, what densities should characterize different areas, and which areas should be protected as open space.

High Capacity Transit (HCT) corridor – This is a corridor designation that indicates that the right-of-way in this corridor would allow for future fixed guideway LRT or high-speed, high-quality regional rapid bus that emulates LRT.

High-occupancy vehicle (HOV) – This term refers to vehicles that are carrying two or more persons, including the driver. An HOV could be a transit bus, vanpool, carpool or any other vehicle that meets the minimum occupancy requirements of the specific facility. In practice, only vehicles with two or three or more persons would be able to use a designated “HOV” travel lane.

Impervious surfaces – This term refers to hard surfaces that do not allow water to soak into the ground and increase the amount of stormwater running off into the stormwater drainage system. The majority of total impervious surfaces is from roads, sidewalks, parking lots and driveways. Stormwater runoff from these impervious surfaces reduces the amount of recharge of water to ground water and increases the capacity requirements of the storm water drainage system.

Intermodal facility – A transportation element that accommodates and interconnects different modes of transportation and serves the statewide, interstate and international movement of people and goods. For example, an intermodal yard is a rail yard that facilitates the transfer of containers or trailers. See also passenger intermodal facility and freight intermodal facility definitions.

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 – The federal highway/public transportation funding reauthorization that, among other features, funds

the national highway system and gives states and local governments more flexibility in making transportation decisions. The act places significant emphasis on broadening public participation in the transportation planning process to include key stakeholders, including the business community, community groups, transit operators, other governmental agencies and those who have been traditionally underserved by the transportation system. Among other things, the act requires the metropolitan area planning process to consider such issues as land-use planning, energy conservation, intermodal connectivity and enhancement of transit service. Finally, the act integrates transportation planning with achievement of the air quality conformity requirements embodied in the Clean Air Act Amendments of 1990 and state air quality plans.

Job Access and Reverse Commute Program – A federal program that provides grants to help states and localities develop a coordinated regional approach to new or expanded transportation services that connect welfare recipients and other low-income persons to jobs and other employment services.

Joint Policy Advisory Committee on Transportation (JPACT) – A 17-member committee that consists of elected officials from area cities and counties as well as leaders from public agencies in the region with an interest in transportation. This committee's role is to evaluate transportation needs and coordinate transportation decisions for the region, and give recommendations to the Metro Council.

Land Conservation and Development Commission (LCDC) – The seven-member directorship of Oregon's statewide planning program. The LCDC is responsible for approving comprehensive land-use plans promulgating regulations for each of the statewide planning goals.

Light rail transit– A frequent and high-capacity service that operates on a fixed guideway within an exclusive right-of-way to the extent possible, connecting the central city with regional centers.

Local comprehensive plan – A generalized, coordinated land-use map and policy statement of the governing body of a city or county that inter-relates all functional and natural systems and activities related to the use of land, consistent with state law.

Local street standards – Include but are not limited to standards for right-of-way, pavement width, travel lanes, parking lanes, curb turning radius, and accessways.

Local transportation needs – Needs for movement of people and goods within communities and portions of counties and the need to provide access to local destinations.

Main roadway route – A road linking major cities, regions of the state or other states.

Major – In general, those facilities or developments which, considering the size of the urban or rural area and the range of size, capacity or service level of similar facilities or developments in the area, are either larger than average, serve more than neighborhood

needs or have significant land use or traffic impacts on more than the immediate neighborhood:

- (a) "Major" as it modifies transit corridors, stops, transfer stations and new transportation facilities means those facilities which are most important to the functioning of the system or which provide a high level, volume or frequency of service;
- (b) "Major" as it modifies industrial, institutional and retail development means such developments, which are larger than average, serve more than neighborhood needs or which have traffic impacts on more than the immediate neighborhood;
- (c) Application of the term "major" will vary from area to area depending upon the scale of transportation improvements, transit facilities and development which occur in the area. A facility considered to be major in a smaller or less densely developed area may, because of the relative significance and impact of the facility or development, not be considered a major facility in a larger or more densely developed area with larger or more intense development or facilities.

Major transit stop - Major bus stops, transit centers and light-rail stations on the regional transit network as defined in Figure 1.16., including:

- (a) Existing and planned light rail stations and transit transfer stations, except for temporary facilities;
- (b) Other planned stops designated as major transit stops in a transportation system plan and existing stops which:
 - (A) Have or are planned for an above average frequency of scheduled, fixed-route service when compared to region wide service. In urban areas of 1,000,000 or more population major transit stops are generally located along routes that have or are planned for 20 minute service during the peak hour; and
 - (B) Are located in a transit oriented development or within 1/4 mile of an area planned and zoned for:
 - (i) Medium or high density residential development; or
 - (ii) Intensive commercial or institutional uses within 1/4 mile of subsection (i);
or
 - (iii) Uses likely to generate a relatively high level of transit ridership.

Marine facility – A facility where freight is transferred between water-based and land-based modes.

Marked pedestrian crossing – Any portion of a roadway at an intersection or elsewhere that is distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway.

Metro –The regional government and designated metropolitan planning organization (MPO - see below) of the Portland metropolitan area. It is governed by a 7-member Metro Council elected by and representing districts within Metro's jurisdictional boundaries: Multnomah County and generally the urban portions of Clackamas and Washington counties. Metro is responsible for the Oregon Zoo, solid waste landfills, the Oregon Convention Center, the Portland Center for the Performing Arts, establishing and maintaining the urban growth boundary, and for regional transportation planning

activities such as the preparation of the RTP, and the planning of regional transportation projects including light-rail.

Metro Committee for Citizen Involvement (MCCI) – A committee composed of citizen representatives from the tri-counties area, to “advise and recommend actions to the Metro Council on matters pertaining to citizen involvement.”

Metro Council – A decision-making body composed of seven members elected from districts throughout the metropolitan region (urban areas of Clackamas, Multnomah and Washington counties). The Council approves Metro policies, including transportation plans, projects and programs recommended by the Joint Policy Advisory Committee on Transportation.

Metro Policy Advisory Committee (MPAC) – A committee established by the Metro charter and composed of local elected officials (including representatives from Clark County, Wash. and the state of Oregon), MPAC is responsible for recommending to the Metro Council adoption of or amendment to any element of the charter-mandated Regional Framework Plan.

Metropolitan Planning Organization (MPO) – An organization located within the State of Oregon and designated by the Governor to coordinate transportation planning in an urbanized area of the state including such designations made subsequent to the adoption of this rule. The Longview-Kelso-Rainier MPO is not considered an MPO for the purposes of this rule. An individual agency designated by the state governor in each federally recognized urbanized area to coordinate transportation planning for that metropolitan region. Metro is that agency for Clackamas, Washington and Multnomah Counties; for Clark County, Wash., that agency is the Southwest Washington Regional Transportation Council (SWRTC, formally the Intergovernmental Resource Center).

Metropolitan area – The local governments that are responsible for adopting local or regional transportation system plans within a metropolitan planning organization (MPO) boundary. This includes cities, counties, and, in the Portland Metropolitan area, Metro.

Metropolitan region – Defined as the area included within Metro’s jurisdictional boundary, including parts of Multnomah, Clackamas and Washington counties (see “Greater Metropolitan Region”).

Metropolitan Transportation Improvement Program (MTIP) – A staged, multi-year, intermodal program of transportation projects which is consistent with the metropolitan transportation plan.

Mobility – The ability to move people and goods from place to place, or the potential for movement. Mobility improves when the transportation network is refined or expanded to improve capacity of one or more modes, thus allowing people and goods to move more quickly toward a particular destination.

Motor vehicle level of service (LOS) – A qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience and safety. An LOS rating of “A” through “F” describes the traffic flow on streets and highways and at intersections. The following table describes general traffic flow characteristics for each level of service on a street or highway:

LOS Traffic Flow Characteristics

- A Virtually free flow; completely unimpeded
- B Stable flow with slight delays; reasonably unimpeded
- C Stable flow with delays; less freedom to maneuver
- D High density but stable flow
- E Operating conditions at or near capacity; unstable flow
- F Forced flow, breakdown conditions
- >F Demand exceeds roadway capacity, limiting volume than can be carried and forcing excess demand onto parallel routes and extending the peak period

Sources: 1985. Highway Capacity Manual (A through F descriptions)
Metro (>F Description)

Multi-use path – A path that is physically separated from motor vehicle traffic by an open space or barrier and is either within the highway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters and other non-motorized travelers.

Multi-use path with bicycle and pedestrian transportation function – These paths are paved off-street regional facilities that accommodate bicycle and pedestrian travel and meet the requirements of the Americans with Disabilities Act. Multi-use paths with a bicycle and/or pedestrian transportation function are connections that are likely to be used by people bicycling or walking to work or school, to access transit or to get to a store, library or other local destination. These paths are generally located near or in residential areas or near centers. Bicycle/pedestrian sidewalks on bridges are also included in this functional classification.

Neighbor city – Nearby incorporated cities with separate urban areas from the Metro urban area, but connected to the metropolitan area by major highways. Neighbor cities include Sandy, Estacada, Canby, Newberg, North Plains and Scappoose.

Oregon Bicycle and Pedestrian Plan – An element of the Oregon Transportation Plan, this plan offers the general principles and policies that ODOT follows to provide bikeways and walkways along state highways. This plan also provides guidance to cities and counties, as well as other organizations and private citizens, in establishing bicycle and pedestrian facilities on local transportation systems.

ODOT – Oregon Department of Transportation.

Oregon's Statewide Planning Goals – The 19 goals that provide a foundation for the state's land-use planning program. The 19 goals can be grouped into four broad categories: land-use, resource management, economic development, and citizen involvement. Locally adopted comprehensive plans and regional transportation plans must be consistent with the statewide planning goals.

Oregon Transportation Plan (OTP) – The state's official statewide, intermodal transportation plan that will set priorities and state policy in Oregon for the next 40 years. The plan, developed by the Oregon Department of Transportation through the statewide transportation planning process, responds to federal ISTEA requirements and Oregon's Transportation Planning Rule.

Park-and-ride – A mode of travel, usually associated with movements between work and home that involves use of a private auto on one portion of the trip and a transit vehicle (i.e., a bus or a light-rail vehicle) on another portion of the trip. A park-and-ride trip could consist of an auto trip from home to a parking lot, and transfer at that point to a bus in order to complete the trip to work.

Parking cash-out – This term refers to a transportation demand management strategy where the market value of a parking space is offered to an employee by the employer. The employee can either spend the money for a parking space, or pocket it and then use an alternative mode to travel to work. Measures such as parking cash-out provide disincentives for commuting by single-occupancy vehicles.

Parking spaces – On and off street spaces designated for automobile parking in areas planned for industrial, commercial, institutional or public uses. The following are not considered parking spaces for the purposes of OAR 660-012-0045(5)(c): park and ride lots, handicapped parking, and parking spaces for carpools and vanpools.

Passenger intermodal facility – The hub for various statewide, national and international passenger modes and transfer points between modes (e.g., airport, bus and train stations).

Peak period pricing – Peak period pricing, also known as value, variable or congestion pricing, is a transportation management tool that applies market pricing principles to roadway use. This tool involves the use of user surcharges or tolls on congested facilities during peak traffic periods and may allow a reduced price for HOV use. It is the only user

fee that is both location and time specific. Charging drivers per mile of travel during the congested times of the day has been used to relieve traffic congestion by discouraging some vehicle trips and shifting others to alternative modes, facilities, destinations or times of travel.

Pedestrian – A person on foot, in a wheelchair or walking a bicycle.

Pedestrian connection – A continuous, unobstructed, reasonably direct route between two points that is intended and suitable for pedestrian use. Pedestrian connections include but are not limited to sidewalks, walkways, accessways, stairways and pedestrian bridges. On developed parcels, pedestrian connections are generally hard surfaced. In parks and natural areas, pedestrian connections may be soft-surfaced pathways. On undeveloped parcels and parcels intended for redevelopment, pedestrian connections may also include rights of way or easements for future pedestrian improvements.

Pedestrian district – A comprehensive plan designation or implementing land use regulations, such as an overlay zone, that establish requirements to provide a safe and convenient pedestrian environment in an area planned for a mix of uses likely to support a relatively high level of pedestrian activity. Such areas include but are not limited to:

- (a) Lands planned for a mix of commercial or institutional uses near lands planned for medium to high density housing; or
- (b) Areas with a concentration of employment and retail activity; and
- (c) Which have or could develop a network of streets and accessways which provide convenient pedestrian circulations.

Pedestrian districts are areas of high or potentially high pedestrian activity where the region places priority on creating a walkable environment. Specifically, the central city, regional and town centers, and light-rail station communities are areas planned for the levels of compact, mixed-use development served by transit that will generate substantial walking and these areas are defined as pedestrian districts. Pedestrian districts should be designed to reflect an urban development and design pattern where walking is a safe, convenient and interesting travel mode. These areas will be characterized by buildings oriented to the street and by boulevard type street design features, such as wide sidewalks with buffering from traffic, marked street crossings at all intersections with special crossing amenities at some locations, pedestrian-scale lighting, benches, bus shelters, awnings and street trees. All streets in pedestrian districts are important pedestrian connections.

Pedestrian facility – A facility provided for the benefit of pedestrian travel, including walkways, crosswalks, signs, signals, illumination and benches.

Pedestrian plaza – A small semi-enclosed area usually adjoining a sidewalk or a transit stop which provides a place for pedestrians to sit, stand or rest. They are usually paved with concrete, pavers, bricks or similar material and include seating, pedestrian scale lighting and similar pedestrian improvements. Low walls or planters and landscaping are usually provided to create a semi-enclosed space and to buffer and separate the plaza

from adjoining parking lots and vehicle maneuvering areas. Plazas are generally located at a transit stop, building entrance or an intersection and connect directly to adjacent sidewalks, walkways, transit stops and buildings entrance or an intersection and connect directly to adjacent sidewalks, walkways, transit stops and building. A plaza including 150-250 square feet would be considered "small."

(16) "Pedestrian scale" means site and building design elements that are dimensionally less than those intended to accommodate automobile traffic, flow and buffering. Examples include ornamental lighting of limited height; bricks, pavers or other modules of paving with small dimensions; a variety of planting and landscaping materials; arcades or awnings that reduce the height of walls; and signage and signpost details that can only be perceived from a short distance.

Planning period – The twenty-year period beginning with the date of adoption of a TSP to meet the requirements of this rule

Posted Speed – This term refers to the posted speed limit on a given street or the legal speed limit as defined in ORS 811.105 and 811.123 when a street is not posted.

Preliminary design – An engineering design which specifies in detail the location and alignment of a planned transportation facility or improvement.

Public transportation – This term refers to both publicly and privately funded transportation serving the general public, including fixed-route bus and rail service, inter-city passenger bus and rail service, dial-a-ride and demand responsive services, client transport services and commuter/rideshare programs. For the purposes of the RTP, school buses and taxi subsidy programs are not included in this definition.

Rail main line – Class I rail lines (e.g., Union Pacific and Burlington Northern/Santa Fe).

Reasonably direct – Either a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.

Refinement plan – An amendment to the transportation system plan, which resolves, at a systems level, determinations on function, mode or general location which were deferred during transportation system planning because detailed information needed to make those determinations could not reasonably be obtained during that process.

Regional – For the purposes of the RTP, this term refers to large subareas of the region, or the entire region, and usually includes many incorporated areas and adjacent unincorporated areas that share major transportation facilities or other urban infrastructure (see "Community").

Regional access bikeway – The function of regional access bikeways is to focus on accessibility to and within the central city, regional centers and some of the larger town centers. Bicyclist travel time to and from activity centers is an important consideration on

regional access bikeways. Regional access bikeways generally have higher bicyclist volumes because they serve areas of higher population and employment density.

Regional corridor bikeway – Regional corridor bikeways function as longer routes that provide point-to-point connectivity between the central city, regional centers and larger town centers. Regional corridor bikeways are generally of longer distance than regional access bikeways and community connector bikeways. Regional corridor bikeways generally have higher automobile spends and volumes than community connector bikeways.

Regional facility – Any transportation facility designated on the system maps in Chapter 1 of the plan, including:

Regional Street Design System (Figure 1.4)
Regional Motor Vehicle System (Figure 1.12)
Regional Public Transportation System (Figure 1.16)
Regional Freight System (Figure 1.17)
Regional Bicycle System (Figure 1.18)
Regional Pedestrian System (Figure 1.19)

Regional Framework Plan – Required of Metro under the Metro charter, the Regional Framework Plan must address nine specific growth management and land-use planning issues (including transportation), with the consultation and advice of MPAC. To encourage regional uniformity, the plan shall also contain model terminology, standards and procedures for local land-use decision making that may be adopted by local governments.

Regional frequent bus – Frequent bus provides slightly slower but more frequent bus service (service runs at least every 10 minutes) along selected corridors and provides for enhanced passenger amenities (such as covered bus shelters, lighting, curb extensions, signal preemption) along the corridor and at major bus stops.

Regional rapid bus – Rapid bus emulates LRT in speed, frequency and comfort (service runs at least every 15 minutes during the weekday and weekend midday base periods). Passenger amenities are concentrated at transit centers (such as schedule information, ticket machines, bicycle parking, covered bus shelters, lighting).

Regional transportation needs – Needs for movement of people and goods between and through communities and accessibility to regional destinations within a metropolitan area, county or associated group of counties.

Regional Transportation Plan (RTP) – The official intermodal transportation plan that is developed and adopted through the metropolitan transportation planning process for the metropolitan planning area.

Regional Urban Growth Goals and Objectives (RUGGOs) – An urban growth policy framework that represents the starting point for the agency's long-range regional planning program.

Reload facility – An intermediary facility where freight is reloaded from one land-based mode to another.

Right-of-way (ROW) – This term refers to publicly-owned land, property or interest therein, usually in a strip, within which the entire road facility (including travel lanes, medians, sidewalks, shoulders, planting areas, bikeways and utility easements) must reside. The right-of-way is usually defined in feet and is acquired for or devoted to multi-modal transportation purposes including bicycle, pedestrian, public transportation and vehicular travel.

Roads – Streets, roads and highways.

Rural area – Those areas located outside the Metro urban growth boundary (UGB).

Rural arterials – These routes serve urban reserve areas, rural reserve areas and green corridors. There are two function categories of rural arterial – urban-to-urban and farm-to-market. Urban-to-urban rural arterials provide key connections to the regional motor vehicle system and 2040 Growth Concept design types within the urban growth boundary. While principal arterials provide primary connections from the Metro region to neighboring cities, urban-to-urban rural arterials also function as secondary connections to neighboring cities. Farm-to-market rural arterials provide farm to market access between urban and rural areas.

Rural community – Areas defined as resort communities and rural communities in accordance with OAR 660-022-0010(6) and (7). For the purposes of the TPR, the area need only meet the definitions contained in the Unincorporated Communities Rule although the area may not have been designated as an unincorporated community in accordance with OAR 660-022-0020.

Shared roadway – A type of bikeway where bicyclists and motor vehicles share a travel lane.

Sidewalk – A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

Significant increase in SOV capacity – For major and minor arterials an increase in SOV capacity is created by the construction of additional general purpose lanes totaling 1/2 lane miles or more in length. General-purpose lanes are defined as through travel lanes or multiple turn lanes. This also includes the construction of a new general-purpose highway facility on a new location. Lane tapers are not included as part of the general-purpose lane. Significant increases in SOV capacity should be assessed for individual facilities rather than for the planning area. For principal arterials, any increase in SOV

capacity created by the construction of additional general-purpose lanes other than that resulting from a safety project or a project solely intended to eliminate a bottleneck.

Single-occupancy vehicle (SOV) – This term refers to vehicles that are carrying one person.

State Transportation Improvement Program (STIP) – A federally required document that allocates transportation funds to a staged, multi-year, statewide, intermodal program of transportation projects – consistent with the statewide transportation plan and planning processes and metropolitan plans, TIPs and processes. The metropolitan TIP must be included in the STIP without change.

State transportation needs – Needs for movement of people and goods between and through regions of the state and between the state and other states.

Technical Advisory Committee (TAC) – A group of technical staff from government agencies participating in the project. The TAC is responsible for producing the base technical information that will ultimately be used by local decision-makers to complete the project purpose.

Telecommute – This term refers to a transportation demand management strategy whereby an individual substitutes working at home for commuting to a work site on either a part-time or full-time basis.

Traffic – The number of motor vehicles in a given location at a given point in time.

Traffic calming – A transportation system management technique that aims to prevent inappropriate through-traffic and reduce motor vehicle travel speeds on a particular roadway. Traditionally, this technique has been applied to local residential streets and collectors and may include speed bumps, curb extensions, planted median strips or rounds and narrowed travel lanes.

Transit – For purposes of the RTP, this term refers to publicly funded and managed transportation services and programs within the urban area, including light-rail, regional rapid bus, frequent bus, primary bus, secondary bus, minibuses, para-transit and park-and-ride.

Transit level of service – The comfort, safety, convenience and utility of transportation service, measured differently for various types of transportation systems.

Transit/mixed-use corridor – Transit/mixed-use corridors (referred to only as corridors in the 2040 Growth Concept) are priority areas for pedestrian travel. They served by good quality transit lines and provide for densities that are somewhat higher than today. These corridors will generate substantial pedestrian traffic near neighborhood-oriented retail development, schools, parks and bus stops. These corridors should include such design features as wide sidewalks with buffering from traffic, street crossings at least every 660

feet (unless there are no intersections, bus stops or other pedestrian attractions) with special street crossing amenities at some locations, pedestrian scale lighting, benches, bus shelters, awnings and street trees. This designation includes multi-modal bridges.

Transit-oriented development – A mix of residential, retail and office uses and a supporting network of roads, bicycle and pedestrian ways focused on a major transit stop designed to support a high level of transit use. The key features include: a mixed-use center and high residential density.

- (a) A mixed use center at the transit stop, oriented principally to transit riders and pedestrian and bicycle travel from the surrounding area;
- (b) High density of residential development proximate to the transit stop sufficient to support transit operation and neighborhood commercial uses within the TOD;
- (c) A network of roads, and bicycle and pedestrian paths to support high levels of pedestrian access within the TOD and high levels of transit use.

Transportation Control Measures (TCMs) – A measure that is for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions.

Transportation demand management (TDM) – Actions which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity. Methods may include but are not limited to the use of alternative modes, ride-sharing and vanpool programs, and trip-reduction ordinances. ~~Actions, such as ridesharing and vanpool programs, the use of alternative modes, and trip reduction ordinances, which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity.~~

Transportation disadvantaged/persons potentially underserved by the transportation system – Individuals who have difficulty in obtaining transportation because of their age, income, physical or mental disability.

Transportation facilities – Any physical facility that moves or assist in the movement of people or goods including facilities identified in OAR 660-012-0020 but excluding electricity, sewage and water systems.

Transportation management area (TMA) – As defined in federal regulations, this term refers to “an urbanized area with population over 200,000” and “applies to the entire metropolitan planning area.” All locations must meet certain standards and non-attainment TMAs must meet additional planning requirements.

Transportation management associations (TMA) – This term refers to non-profit coalitions of local businesses and/or public agencies dedicated to reducing traffic congestion and pollution and improving commuting options for employees.

Transportation needs – Estimates of the movement of people and goods consistent with acknowledged comprehensive plan and the requirements of this rule. Needs are typically based on projections of future travel demand resulting from a continuation of current trends as modified by policy objectives, including those expressed in Goal 12 and the TPR, especially those for avoiding principal reliance on any one mode of transportation. See separate definitions for local transportation needs, regional transportation needs and state transportation needs.

Transportation Planning Rule (TPR) – The implementing rule of statewide land-use planning goal (#12) dealing with transportation, as adopted by the state Land Conservation and Development Commission (LCDC). Among its many provisions, the rule includes requirements to preserve rural lands, reduce vehicle miles traveled (VMT) per capita by 20 percent in the next 30 years, reduce parking spaces and to improve alternative transportation systems.

Transportation Policy Alternatives Committee (TPAC) – Senior staff-level policy committee that reports and makes policy recommendations to JPACT. TPAC's membership includes technical staff from the same governments and agencies as JPACT, plus representatives of the Federal Highway Administration and the Southwest Washington Regional Transportation Council (SWRTC); there are also six citizen representatives with strong public involvement skills and diverse backgrounds appointed by the Metro Council.

Transportation project development – Implementing the transportation system plan (TSP) by determining the precise location, alignment, and preliminary design of improvements included in the TSP based on site-specific engineering and environmental studies.

Transportation service – A service for moving people and goods, such as intercity bus service and passenger rail service.

Transportation system management (TSM) – Strategies and techniques for increasing the efficiency, safety, capacity or level of service of a transportation facility without major new capital improvements increasing its size. Examples include, but are not limited to, This may include traffic signal improvements, traffic control devices including installing medians and parking removal, intersection channelization, access management, re-striping of HOV lanes, ramp metering, incident response, targeted traffic enforcement and programs that smooth transit operations.

Transportation system plan (TSP) – A plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas.

Tri-Met – Tri-County Metropolitan Transportation District, which is the transit agency for most of Clackamas, Multnomah and Washington counties.

Truck terminal – A facility that serves as a primary gateway for commodities entering or leaving the metropolitan area.

Urban area – Lands within an urban growth boundary, two or more contiguous urban growth boundaries, and urban unincorporated communities as defined by OAR 660-022-0010(9). In the case of the Portland metropolitan region, those areas located within the Metro urban growth boundary (UGB).

Urban fringe – Areas outside the urban growth boundary that are:

- (a) within 5 miles of the urban growth boundary of an MPO area; and
- (b) within 2 miles of the urban growth boundary of an urban area containing a population greater than 25,000.

Urban growth boundary – The politically defined boundary around a metropolitan area outside of which no urban improvements may occur (sewage, water, etc.). It is intended that the UGB be defined so as to accommodate all projected population and employment growth within a 20-year planning horizon. A formal process has been established for periodically reviewing and updating the UGB so that it accurately reflects projected population and employment growth.

Urban Growth Management Functional Plan – A regional functional plan with requirements binding on cities and counties in the Metro region, as mandated by Metro's Regional Framework Plan. The plan addresses such issues as accommodation of projected regional population and job growth, regional parking management, water quality conservation, retail in employment and industrial areas and accessibility on the regional transportation system. All cities and counties in the Metro region shall adopt changes to local comprehensive plans and zoning codes to address these issues within 24 months after the adoption of the plan ordinance by the Metro Council.

Vehicle miles of travel (VMT) – Automobile vehicle miles of travel. Automobiles, for purposes of this definition, include automobiles, light trucks, and other similar vehicles used for movement of people. The definition does not include buses, heavy trucks and trips that involve commercial movement of goods. VMT includes trips with an origin and a destination within the MPO boundary and excludes pass through trips (i.e., trips with a beginning and end point outside of the MPO) and external trips (i.e., trips with a beginning or end point outside of the MPO boundary). VMT is estimated prospectively through the use of metropolitan area transportation models.

Walkway – A hard-surfaced transportation facility built-intended and suitable for use by pedestrians, including persons using wheelchairs. Walkways include sidewalks, surfaced portions of accessways, paths and paved shoulders.

Wide outside lane – A wider than normal curbside travel lane that is provided for ease of bicycle operation where there is insufficient room for a bike lane or shoulder bikeway.

Exhibit C

Supplemental I-5/ 99W Connector

Exception Findings

Introduction

The I-5 to 99W Connector is a proposed new four-lane, grade separated, limited-access highway that would connect Interstate 5 (I-5), south of the Tualatin town center, to Highway 99W (99W). This facility will function as a principal arterial, serving long-distance, high-speed, interstate, statewide and inter-regional travel. This facility will provide a direct link for through-travel between two major highways – Interstate 5 and Highway 99W, and will improve access on existing roads connecting the town centers of Tualatin, Sherwood, King City, Tigard and Murray/Scholls.

This document establishes findings of fact and reasons to support a need, mode, function and general location goals exception for transportation improvements on rural land as defined in OAR 660-012-0070. Portions of the general corridor boundary identified in the *Western Bypass Study Technical Report* and the entire southern corridor identified herein are located on rural lands outside of the urban growth boundary.¹ The expanded exceptions findings will be adopted as part of a series of amendments to the 2000 Regional Transportation Plan (RTP), in response to the LCDC acknowledgement process. This document establishes additional findings of fact that address the goal exception requirements in OAR 660-12-070 for these portions of this corridor located outside the UGB. This document also establishes why alternatives that do not require a new exception are not feasible, and should not be further studied at the corridor planning level. This document addresses only compliance with the identified TPR standards. Compliance RUGGOs with other applicable statewide planning goals are addressed in separate findings documents. These findings are not intended to replace more detailed exceptions findings that should be made at the corridor refinement planning level. Proposed amendments to the RTP will stipulate that the corridor refinement plan for the I-5/99W Connector address the exceptions requirements at the project level, but not revisit the broader findings made here.

The purpose of this two-tiered approach to exceptions findings is to narrow the scope of the refinement planning process, and thus better promote certainty in the development within alternative corridors that can appropriately be eliminated at the TSP planning level.

¹ The general corridor is divided into three segments. All three segments are located outside the Metro urban growth boundary. The eastern segment is from I-5 to Washington County Commuter rail line, between the urban growth boundary and Day Road. The middle segment is from Washington County Commuter rail line to Baker Road, between Tonquin Road and Morgan Road. The western segment is from Baker Road to 99W, between the urban growth boundary and Brookman Road. The southern corridor is primarily on exception lands south of the corridor identified in the *Western Bypass Study*.

General background

Western Bypass Study

The *Western Bypass Study* provided a comprehensive, multi-modal analysis and evaluation of alternative transportation options to address identified transportation needs in a large study area that included the urban portion of Washington County and westernmost portions of the City of Portland and Clackamas County. The study area also included portions of rural Washington County. The study was initiated in 1989 to respond to issues related to the adequacy of existing road and transit systems to serve north-south transportation needs in Washington County as identified in Metro's 1987 *Southwest Corridor Study* and during the *Washington County Transportation Plan* development in 1988.

The study evaluated five alternatives that included a variety of multi-modal improvements. The best performing components to the five alternatives were blended together in the Recommended Alternative to meet the transportation needs of the study area. The *Western Bypass Study Recommended Alternative Report* summarizes the transportation problems within the study area and included the following recommendations:

- Construction of a new limited access expressway type facility from I-5 to 99W (the I-5 to 99W Connector)
- Deletion from further consideration of a full bypass from I-5 to Sunset Highway (US 26)
- Construction of a series of arterial and collector road improvements that include bicycle and pedestrian facilities, primarily serving north/south urban to urban travel
- Widening of Highway 217
- Implementation of transportation system management actions to improve the operation of the existing roadway system
- Implementation of transportation demand management programs such as carpooling, flexible work hours and parking management to limit demand for the existing roadway system
- Expanded transit service in the study area

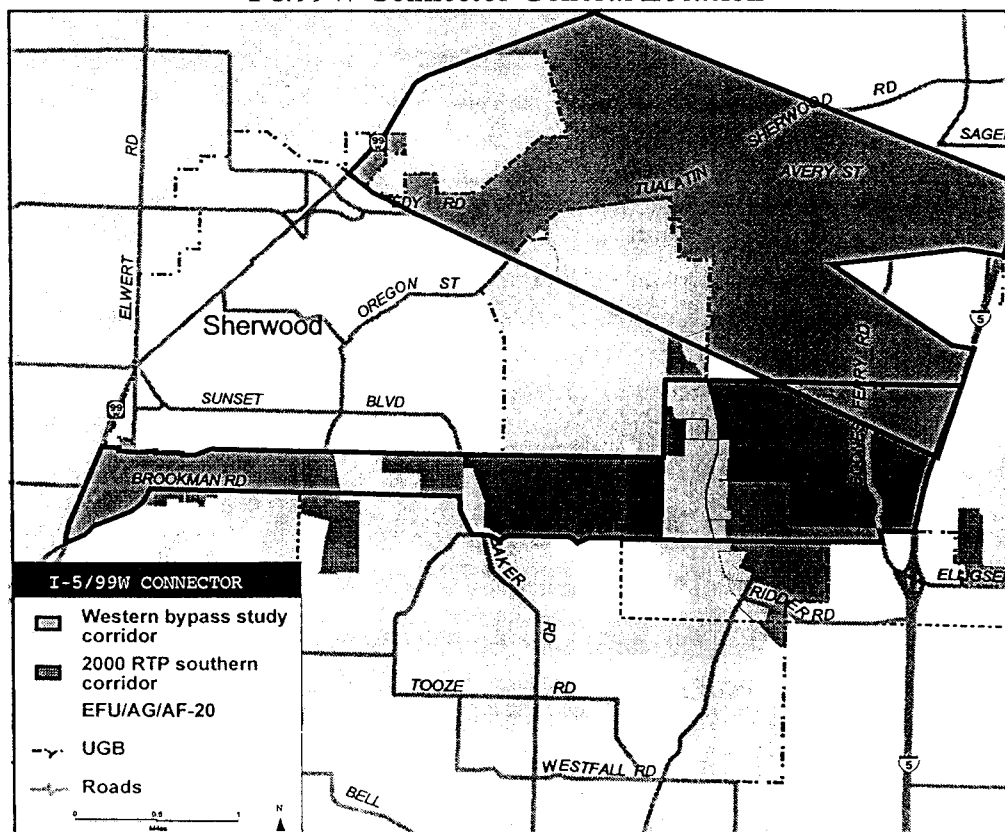
The Metro Council adopted recommendations identified in the *Western Bypass Study Recommended Alternative Report* in Resolution No. 97-2497 in June 1997. The highway and arterial improvements identified in the *Western Bypass Study* were amended to the RTP Project List in the 1995 *Interim Federal Regional Transportation Plan* with an acknowledgement that these improvements would be evaluated consistent with performance measures and standards adopted in the 2000 RTP. The 2000 RTP evaluation would determine consistency with the 2040 Growth Concept and requirements contained in the State Transportation Planning Rule.

The need, function, mode and general corridor for the I-5/99W Connector were identified initially in the *Western Bypass Study Recommended Alternative Report* (Appendix A). Supporting technical information and relevant land-use findings are included in the *I-5 to 99W Connector Technical Report* (Appendix B) and the *I-5 to 99W Connector Findings of Fact and Statement of Reasons in Support of Exceptions to Goals 3, 4, 11 and 14* (Appendix C).

2000 Regional Transportation Plan

The 2000 Regional Transportation Plan reconfirms the need, mode and function of the I-5 to 99W Connector to serve a variety of trip types and purposes, including through trips of statewide significance, regional trips and local trips.² The general location is shown in Figure 1, which displays the general corridor identified in the *Western Bypass Study Technical Report* and the southern corridor evaluated as part of the 2000 Regional Transportation Plan (RTP). As part of the 2000 RTP analysis, the new "southern corridor" connecting I-5 to 99W south of the Sherwood town center at approximately Middleton Road was evaluated in addition to an alignment that fell within the general corridor identified in the *Western Bypass Study Technical Report*. This southern corridor is located outside the urban growth boundary on rural lands, primarily exception lands.

Figure 1
I-5/99W Connector General Location



² 1999 Regional Transportation Plan (December 16, 1999), pages 3-68 through 3-69.

The 2000 RTP defines a general location for the “southern corridor” to evaluate the potential for improved operation of 99W through Sherwood and reduced impacts on the existing built environment. The RTP does not attempt to identify access points within the I-5/99W connector corridor and defers these decisions to the corridor refinement planning process. Designation of the southern corridor boundary was guided by regional policies contained in the Regional Urban Growth Goals and Objectives (RUGGOs) and 2040 Growth Concept, acknowledged by DLCD in 1996. The southern corridor boundary was carefully chosen to avoid and/or minimize impacts to:

- agricultural and forest resource lands
- natural resources such as streams, wetlands, riparian corridors and features such as the Tonquin Scablands geologic area and the Tualatin River National Wildlife Refuge
- public facilities, regional trails, parks and open spaces
- existing development
- aggregate resource extraction activities

In addition, the corridor boundary was defined to remain close to urban growth boundary within exception lands as much as possible, to allow the corridor to serve as a future hard edge to lands outside of the current urban growth boundary designated for future growth.

The 2000 RTP does not make a final “determination” authorizing any portion of the roadway to be located outside the urban growth boundary. However, the 2000 RTP adopts the corridor studied in the *Western Bypass Study* and adopted in Ordinance No. 97-689A and adopts the “southern” corridor evaluated in the 2000 RTP. Together, these corridors are the “general location” for this transportation system improvement. The I-5 to 99W Connector is a specific corridor refinement study to proceed with an alignment decision in project development. The 2000 RTP directs the corridor refinement study to address the following design considerations to authorize a specific alignment:

- balance improvement plans with impacts on Tualatin and Sherwood town centers and adjacent rural reserves
- in addition to the northern corridor considered in the Western Bypass Study, examine the benefits of an alignment in the southern corridor, located along the southern edge of Tualatin and Sherwood, including the accompanying improvements to 99W that would be required with either corridor
- identify parallel capacity improvements to Tualatin-Sherwood Road and 99W in Tigard from I-5 to Highway 217 that could be used to phase in, and eventually complement future highway improvements

- link UGB expansion in this area to the corridor refinement study, and examine the potential for the proposed highway to serve as a "hard edge" in the ultimate urban form of the Sherwood area
- develop an access management and connectivity plan for 99W in the Tigard area that balances accessibility needs with physical and economic constraints that limit the ability to expand capacity in this area
- consider express, peak-period pricing and HOV lanes

The 2000 RTP establishes the need, mode, function and general location for the I-5 to 99W Connector. The need is for a connection from I-5 to 99W.³ The mode is a four-lane, grade separated limited access highway. The function is a principal arterial serving long distance, higher speed interstate, statewide and interregional travel. The general location is the entire corridor shown in Figure 1.

However, in addition to more detail needed as part of project development, refinement of the general location is needed before right-of-way acquisition and construction can occur. The I-5 to 99W Connector corridor refinement study will examine the southern corridor as well as the northern corridor defined in the *Western Bypass Study*. The project development stage would include specific design details, a project location or alignment, and determination of impacts on the natural and built environment inside and outside of the urban growth boundary.

In summary, the need, mode, function have been identified for the I-5 to 99W Connector in the *Western Bypass Study* and adopted in the 2000 RTP. Based on a more detailed evaluation of impacts on the natural and built environment, this exception defines a general corridor for the I-5 to 99W Connector that differs from the general corridor defined in the *Western Bypass Study Technical Report*. The corridor addressed in this exception is located on rural lands outside of the urban growth boundary and will be considered along with the general corridor identified in the *Western Bypass Study Recommended Alternative Report* as part of the I-5 to 99W Connector corridor refinement study.

Summary of relevant State Land Use Goals and administrative rules, and findings of compliance

The following section summarizes relevant State Land Use Goals and administrative rules, which are followed by a finding of compliance.

³ I-5 to 99W Connector Findings of Fact and Statement of Reasons in Support of Exceptions to Goals 3, 4, 11 and 14 (March 11, 1997), pages 10-19 are incorporated herein by reference.

OAR 660-012-0070(1)

Summary:

OAR 660-012-0070(1) requires an exception for siting transportation facilities on rural lands that do not meet the requirements of 660-012-0065.

Finding of compliance:

The list of permitted transportation improvements in OAR 660-012-0065 does not include new four-lane limited-access highways on rural lands; therefore, OAR 660-012-0065 does not apply. Instead, the exception standards in OAR 660-012-0070 apply. The I-5 to 99W Connector satisfies OAR 660-012-0070(1) because exceptions will be taken in affected comprehensive plans consistent with the requirements of OAR 660-012-0070. The 2000 RTP requires inclusion of the I-5 to 99W Connector in affected comprehensive plans at Section 6.4.1, Figures 1.1 through 1.15 and Appendix 1.1 (RTP Project #6005).

OAR 660-012-0070(2)

Summary: OAR 660-012-0070(2) requires that the exception be taken pursuant to ORS 197.732(1)(c), Goal 2, OAR 660, Division 4 and OAR 660, Division 12.

Finding of compliance: Because OAR 660-004 and OAR 660-012 implement Goal 2 and ORS 197.732(1)(c), a demonstration of compliance with these administrative rule requirements for an exception to be taken by affected cities and counties to identify the need, mode, functional and general location of the I-5 to 99W Connector demonstrates compliance with all of the review standards.⁴

OAR 660-012-0070(3)

Summary: OAR 660-012-0070(3) concerns exceptions that are “adopted as part of a TSP or refinement plan” and requires an exception to “at a minimum, decide need, mode, function and general location for the proposed facility.”

Finding of compliance: The need, mode, function and general location have been identified in accordance with OAR 660-012-0070 as adopted in Ordinance No. 97-689A. Documentation was in the *I-5 to 99W Connector Technical Report* (Appendix B) and the *I-5 to 99W Connector Findings of Fact and Statement of Reasons in Support of Exceptions to Goals 3, 4, 11 and 14* (Appendix C). This exception for the 2000 RTP, which contains the regional Transportation System Plan (TSP), identifies an additional part of the general location corridor for the I-5 to 99W Connector that is located outside the urban growth boundary and will establish why the facility cannot be reasonably be accommodated within the urban growth boundary in the general

⁴ Ibid. Pages 4-8 are incorporated by reference herein.

corridor identified in the *Western Bypass Study Technical Report* and the acknowledged 2040 Growth Concept.

- (a) The general location of the I-5 to 99W Connector is the corridor identified at Section 6.4.1, Figures 1.1 through 1.15 and Appendix 1.1 (RTP Project #6005) and shown on Figure 1 of these findings. The general location of this corridor was evaluated in the *I-5 to 99W Connector Technical Report* (Exhibit B), except for the “southern corridor” indicated on Figure 1 of these findings. The evaluation of that portion of the corridor is at pages 3-68 and 3-69 of the 2000 RTP based on RTP Preferred Network PM 2-hour peak level of service analysis for Rounds 1-4, PM Vehicle Volumes for Rounds 1-4 and PM 2-hour select link analysis.
- (b) The size, design and capacity (mode) of the I-5 to 99W Connector is a four-lane, grade separated, limited-access highway. That is the proposed facility evaluated in the *Western Bypass Study Recommended Alternative Report* (June 1997). The measures limiting access are specified in that report’s description of the proposed use.
- (c) The process for selection of the precise design and location of this limited access facility will need to determine specific mitigation measures that will minimize operational impacts, support planned land use, enhance compatibility with existing land uses and avoid splitting natural resource areas. The specific alignment will be determined by ODOT following preparation of a design-level (Tier II) environmental analysis in a manner consistent with federal requirements set out in the National Environmental Policy Act and implementing regulations, including public and agency involvement processes and opportunity for public comment. This process also will require ODOT to address and show compliance with all applicable local government and agency ordinances, regulations and permit requirements, including provisions for mitigation of adverse impacts. Further goals 3, 11 and 14 exceptions will be needed if the location of the final alignment is outside of the UGB on any resource lands.
- (d) No land use regulations implementing this goal exception could be included in the 2000 RTP. However, this exception identifies potential mitigation measures to offset environmental, economic and social or energy impacts, and assure compatibility with adjacent uses. Once a specific final alignment is selected in the subsequent corridor refinement planning and project development processes more specific measures would be identified.

OAR 660-012-0070(4)

Summary of OAR 660-012-0070(4) and related ORS 197.732(1)(c)(A); Goal 2, Part II(c)(1); OAR 660-04-020(2)(a); and OAR 660-04-022:

OAR 660-012-0070(4) requires the exception analysis to include the identification of need for the I-5 to 99W Connector that is consistent with and meets the intent of OAR 660-12-030(1). OAR 660-012-0070 (4) states:

Exhibit 'C'

“To address Goal 2, Part II(c)(1), the exception shall demonstrate that there is a transportation need identified consistent with the requirements of 660-12-030 which cannot be accommodated through one or a combination of the following measures not requiring an exception:

- (a) alternative modes of transportation,
- (b) traffic management measures and
- (c) improvements to existing facilities.”

In addition, OAR 660-12-030(1) requires that a TSP identify transportation needs relevant to the planning area and the scale of the transportation network being planned, including state, regional and local transportation needs for movement of goods and services.

Finding of compliance with OAR 660-012-0070(4) and related ORS 197.732(1)(c)(A); Goal 2, Part II(c)(1); OAR 660-04-020(2)(a); and OAR 660-04-022: The transportation need for the I-5 to 99W Connector, consistent with OAR 660-012-0070(3), is described in detail in the *I-5/99W Technical Report* and in *I-5 to 99W Connector: Findings of Fact and Statement of Reasons in Support of Exceptions to Goals 3, 4, 11 and 14*.⁵ In addition, the *Western Bypass Study Alternatives Analysis Report* (May 1995) describes the performance of five alternatives analyzed in the alternatives analysis and why measures not requiring an exception, such as alternative modes, TSM, TDM and improvements to existing highways and arterial streets, alone or in combination, cannot reasonably accommodate the identified transportation need.⁶ The report concludes that even with implementation of these alternative measures which can occur with land use changes, the I-5/99W Connector is a necessary part of the transportation strategy for this part of the region.

OAR 660-012-0070(4) requires that an exception analysis include the identification of need for the I-5 to 99W Connector that is consistent with and meets the intent of OAR 660-12-030(1). The connector is consistent with OAR 660-12-030(1) because it is based on the *Western Bypass Recommended Alternative Report* and the 2000 RTP, both of which considered and identified transportation needs relevant to the study area and the scale of the transportation network being planned. The 2000 RTP contains the regional TSP.

To summarize, the I-5 to 99W connector would serve regional and state transportation needs, moving people and goods between communities within the Portland metropolitan region as well as through the region or to other destinations in or outside the state. A limited-access facility is warranted to preserve the function of the roadway to facilitate regional and inter-regional trips.

⁵ Appendix C: *I-5 to 99W Connector Findings of Fact and Statement of Reasons in Support of Exceptions to Goals 3, 4, 11 and 14*, pages 10-22 are incorporated by reference herein.

⁶ *I-5 to 99W Connector Findings of Fact and Statement of Reasons in Support of Exceptions to Goals 3, 4, 11 and 14*, pages 25-39 are incorporated by reference herein.

OAR 660-012-0070(5)

Summary of OAR 660-012-0070(5) and related ORS 197.732(1)(c)(B); Goal 2, Part II(c)(2); and OAR 660-04-020(2)(b): OAR 660-012-0070(5) provides that to address Goal 2, Part II(c)(2), the exception must demonstrate that non-exception locations cannot reasonably accommodate the proposed transportation improvement or facility. Similarly, OAR 660-04-020(2)(b) requires justification why “areas which do not require a new exception cannot reasonably accommodate the use.”

Finding of compliance with OAR 660-012-0070(5) and related ORS 197.732(1)(c)(B); Goal 2, Part II(c)(2); and OAR 660-04-020(2)(b):

This section establishes why alternatives that do not require a new exception are not feasible, and should not be further studied at the corridor planning level.

In 1997, ODOT prepared a fatal flaw analysis of the north corridor.⁷ The study was initiated to look at the range of feasible alternatives within the northern corridor from a land use, engineering and environmental standpoint. An analysis of four different alignments was prepared and a determination of whether one or more feasible alignments were available within the northern corridor was developed. Variations of the four alignments were identified, looking at a northern project area, a southern alignment and alignments that crossed in between.⁸

Based on this analysis, two of the three alignments within the northern corridor would go outside the existing urban growth boundary for a small distance and require more detail exceptions findings that should be made at the corridor refinement planning level. These two alignments would also traverse the Tonquin Scablands and/or the Tualatin Wildlife Refuge and several significant wetlands and mining operations. The third alignment alternative was located wholly within the existing urban growth boundary. This alignment has the most impact to well-established neighborhoods and existing industrial uses but is able to avoid the more substantial environmental areas, including the Tualatin Wildlife Refuge and major wetlands complexes. Given the current level of urbanization in this general vicinity, and significantly greater impacts to existing residential and industrial development, this alternative does not appear feasible. This exception identifies an additional part of the general location corridor for the I-5 to 99W Connector that is located outside the urban growth boundary.

These findings are not intended to replace more detailed exceptions findings that should be made at the corridor refinement planning level. The action taken here merely establishes a general location corridor within which the proposed facility is to be evaluated as part of the corridor refinement planning. Locating the I-5 to 99W Connector entirely inside the UGB could potentially result in unreasonable adverse impacts that would justify a location outside the UGB, based on the fatal flaw analysis prepared by ODOT. Therefore, this exception expands the general location corridor for the I-5/99W to include some lands located outside the UGB.

⁷ I-5 to 99W Connector Fatal Flaw Analysis (December 1997) is incorporated herein by reference.

⁸ IBID. Pages 4-1 through 4-8 and Appendix IIA-15 through 16 are incorporated herein by reference

However, including those rural lands in the “general location” decision does not, in itself, authorize construction of this facility on those lands. For that to happen, a second exception must be taken demonstrating why the facility cannot reasonably be located entirely within the UGB. Insufficient evidence is available to conclude one way or the other until more detailed corridor refinement planning for the corridor is completed.

OAR 660-012-0070(6)

Summary:

OAR 660-012-0070(6) requires the exception to justify the thresholds chosen to judge whether an alternative method or location identified under OAR 660-012-0070(4) or (5) cannot reasonably accommodate the proposed transportation need or facility. These thresholds include transportation need, cost, operational feasibility, economic dislocation and other relevant factors such as impacts on planned urban growth patterns and ability to achieve VMT objectives.

Finding of compliance: The most relevant thresholds for the I-5 to 99W Connector are the nature of the transportation need, operational feasibility and impacts on planned urban growth patterns.

- ***Transportation Need and Operational Feasibility***

As noted in the I-5 to 99W Connector Findings, related Technical Report and the 2000 RTP, the proposed principal arterial connection is intended to and would serve predominately state and regional transportation needs.⁹ In this capacity, moving people and goods between communities within the Portland metropolitan region as well as through the region or to other destinations in or outside the state. These needs cannot be reasonably met through alternative modes of transportation, including significantly expanded transit service, demand management or through facilities serving local needs.¹⁰

The *Western Bypass Study Recommended Alternative* includes significant transit service expansion. Similarly, improvements to existing roadways beyond those contained in the *Western Bypass Study Recommended Alternative* would not eliminate the state and regional needs for this facility or meet the operational objectives of providing a facility designed

- ***Impacts on Planned Urban Growth Patterns***

Acknowledged by DLCD in 1996, the 2040 Growth Concept includes the I-5 to 99W Connector within the urban growth boundary. Existing development patterns in the study area within the urban growth boundary are significant constraints in this corridor and would impact Metro’s ability to implement the land use and transportation strategy adopted in the 2040 Growth Concept. The 2040 Growth Concept focuses new jobs and housing in communities such as downtown Tigard, Tualatin and Sherwood and along major transit

⁹ I-5 to 99W Technical Report, March 11, 1997, pages 43-44 are incorporated by reference herein.

¹⁰ Ibid, pages 20-21.

corridors such as 99W. While the need for the I-5 to 99W Connector has been established to serve trips to these communities and destinations outside of the region, the resulting transportation system must be compatible with and cannot undermine implementation of the 2040 Growth Concept vision in these communities.

The 2000 RTP at page 3-68 found a northern corridor of the connector as adopted in the 2040 Growth Concept and Western Bypass Study recommendations caused significant congestion on 99W in Sherwood despite major improvements to 99W. Severe access management, frontage road and intersection improvements along 99W in Sherwood were modeled in conjunction with the northern corridor. However, these strategies did not fully address congestion on 99W and could impact development of the Sherwood town center. In contrast, the 2000 RTP, at pages 3-68 through 3-69, found that a southern corridor connecting to 99W just south of Sherwood would not only negate difficult and costly access control measures along 99W in Sherwood, this corridor might also prove more attractive for through-trips, given the higher traffic volumes experienced on the southern corridor.

The Western Bypass Study prepared an *Alternatives Analysis Report* (May 1995) that attempted to quantify the impacts for an alignment within the urban growth boundary. That document analyzed impacts for all the individual improvements in each of the five alternatives were analyzed. The analysis demonstrated that impacts for an alignment within the urban growth boundary could be significant.¹¹ The number of affected parcels has grown from this initial analysis and will likely make construction of a limited-access facility within the existing urban growth boundary not feasible. Again, insufficient evidence is available to conclude one way or the other until corridor refinement planning for the corridor is completed.

OAR 660-012-0070(7) and (8)

Summary of OAR 660-012-0070(7) and (8) and related ORS 197.732(1)(c)(C) and (D); Goal 2, Part II(c)(3) and (4); and OAR 660-04-020(2)(c) and (d):

OAR 660-012-0070(7) provides that to comply with Goal 2, Part II(c)(3), the exception must compare the economic, social, environmental and energy consequences of the proposed location with other locations requiring exceptions. The exception must discuss "whether the net adverse impacts associated with the proposed exception site are significantly more adverse than the net impacts from other locations which would also require an exception." The proposed exception would fail only if the impacts associated with it are "significantly more adverse" than the other identified exception sites. The evaluation of consequences may be generalized rather than site-specific.

OAR 660-04-020(2)(c) is similar to OAR 660-012-0070(7). It requires a general description of the character of each alternative area and discussion of the advantages and disadvantages of the various alternatives, including positive and negative consequences. Like OAR 660-012-0070 (7), the exception must explain why the use at the chosen site is not "significantly more adverse"

¹¹ Appendix A: WBS Recommended Alternative Report, June 1996, pages 34-39.

than would typically result from the same proposal being located at one of the exception sites. Considerations include which resource lands are most productive; the ability to sustain resource uses near the proposed use and long-term economic impact on general area resulting from removal of land from the resource base.

OAR 660-04-020(2)(d) requires the exception to explain how the proposed use is compatible with other adjacent uses or will be rendered compatible through measures designated to reduce adverse impacts. "Compatible" is not intended to mean no interference or adverse impacts of any type with adjacent uses. The proposed transportation improvement must be determined to either be compatible with the existing uses or can be rendered compatible through measures designed to reduce adverse impacts.

OAR 660-012-0070(8) provides that comply with Goal 2, Part II(c)(4), the exception must describe the adverse effects that the proposed transportation improvement is likely to have on the surrounding rural lands and land uses, including increased traffic and pressure on non-farm or highway-oriented development on areas made more accessible by the transportation improvement. This section also requires, as part of the exception, facility design and land use measures which minimize accessibility of rural lands from the proposed transportation facility and support continued rural use of surrounding lands.

Finding of compliance with OAR 660-012-0070 (7) and (8) and related ORS

197.732(1)(c)(C) and (D); Goal 2, Part II(c)(3) and (4); and OAR 660-04-020(2)© and (d):

Final determination of a specific alignment for the I-5/99W connector improvement is deferred to further study in Section 6.7.5 in Chapter 6 of the 2000 RTP. Because no specific alignment is proposed at this time, it is premature to address these exception standards. If project development results in an alignment outside the UGB, a further exception applying these standards will be required. Section 6.7.5 of the RTP was written to include specific considerations for the refinement planning process to ensure that OAR 660-12-0070(7) and (8) are expressly met, including economic, social, environmental and energy impacts, and to ensure that future land use decisions in the area do not preclude ultimate construction of recommended projects.

Further, Titles 5 and 11 of the Urban Growth Management Functional Plan (UGMFP) set forth provisions for Green Corridor planning and future plans in urbanizing areas that provide the Metro region with unique tools to prevent land use changes that could preclude construction of the planned facility, and careful consideration of the land use effects of proposed improvements.

A preliminary analysis of the southern corridor shows the following potential adverse impacts of the limited access expressway, depending on the alignment chosen as part of the project development stage:

- ***Adverse impacts on surrounding rural lands and Agricultural and Forest Lands***
The southern corridor could have direct impacts on agricultural or forest lands, designated EFU, EFC, AGF or AF-20, depending on the alignment chosen for the limited access expressway as part of the project development stage. Three parcels designated as EFU lands are located within the southern corridor. Some of the parcels have residential development

and related improvements. Indirect impacts could range from the loss of crop income from the local economy to the disruption of farming activities such as crop spraying and harvesting.

The predominate uses in the area located in the eastern section of the southern corridor, between the City of Tualatin and the City of Wilsonville, are rural residential, rural industrial and limited agricultural uses. The new State of Oregon Women's Correctional facility is located in this section of the corridor. A sand and gravel mining operation is located in the northwest portion of this section of the corridor. Based on the limited agricultural activities taking place in this part of the corridor and to the south, there would be limited impacts to farm uses.

The middle section of the southern corridor is surrounded by the City of Sherwood and the City of Tualatin on three sides and contains very little agricultural activity, with the exception being some orchards within the rural residential portion of the area. The northern part of this section is occupied by a sand and gravel operation. The exception lands located to the south have a mixture of rural residential uses and field crop and orchard production. Based on the limited agricultural activities taking place in this part of the corridor and to the south, there would be limited impacts to farm uses.

The western section of the corridor is located adjacent to the City of Sherwood and contains some EFU land that is completely surrounded by exception land. The exception lands in these areas are predominately in rural residential, field crop or small nursery uses. Potential agricultural impacts would be on EFU land located to the south and west. EFU land to the south contains nurseries, orchards and row crops. This land has also been split by a number of exception areas. Highway 99W forms a buffer from EFU lands to the west.

- ***Adverse impacts on Natural resources***

Natural resources could be affected by an alignment within the southern corridor due to potential fragmentation or alteration of wildlife habitat, loss of riparian areas, alteration of wetlands, stormwater runoff and stream or floodplain crossings, depending on the alignment chosen for the limited access expressway at the project development stage.

The eastern section of the corridor is generally sparsely covered with trees. Coffee Lake Creek and Rock Creek run through the middle section of the corridor. Both creeks have a floodplain located along the bank of these streams. A southern alignment could have direct impacts on the geologic feature known as the Tonquin Scablands Geologic Area, which includes protected mineral and aggregate resource areas, in the middle section of the southern corridor. Most of the wetlands within the corridor are located within the Tonquin Scablands Geologic Area, south of Tonquin Road in the middle section of the corridor, along perennial streams and along some drainages and intermittent streams. Goose Creek and Cedar Creek are located in the western section of the southern corridor. Both creeks have a floodplain located along the bank of these streams.

These potential adverse impacts are not significantly more adverse than the net impacts from other locations that would also require an exception based on the fatal flaw analysis prepared by ODOT in 1997, instead, the impacts appear to similar pending more detailed analysis to be completed as part of the corridor refinement planning and project design processes.¹²

Compatibility issues arise when considering the proposed transportation improvement as a result of potential adverse impacts on agricultural, forest and natural resources that are protected by Statewide Land Use Goals 3,4 and 5.

Compatibility with surrounding rural lands and agricultural and forest uses

Compatibility with the surrounding rural lands and land uses is dependent on factors that are related to how the proposed transportation improvement is designed and operated. Surrounding rural lands and land uses could be impacted by increased traffic and pressure on non-farm or highway-oriented development on areas made more accessible by the transportation improvement.

The RUGGOs for rural land in this region reflect a desire to maintain the rural character of the landscape to support and maintain the region's agricultural economy, avoid or eliminate conflicts with farm and forest practices, and help to clearly separate urban from rural land. The proposed limited-access highway would support continued separation of urban and rural lands in this part of the region. Physical features such as roads provide natural buffers from agricultural activities such as equipment operation, spraying and the production of dust from working soil. This road improvement would be designed to specifically exclude interchanges or other highway access to the rural road system. New rural commercial or industrial development would be restricted. Zoning for lands located south of the corridor would be for resource protection on farm and forestry land, and very low-density residential for exception land. Extensions of urban services to areas south of the corridor would be prohibited. Expansion of the urban growth boundary to include rural lands in this part of the region should be planned to occur in conjunction with selection of a final alignment of the I-5/99W Connector. Green Corridor and Neighbor City inter-governmental agreements between Metro, ODOT and jurisdictions with the southern corridor would be needed to mitigate the potential adverse land use effects of the improved accessibility that would be provided by this facility. The agreements would limit access to farm and forest uses within rural reserves; maintain rural zoning, limit rural commercial or rural industrial uses within rural reserves and protect natural resources. In addition, implementation of the I-5 to 99W connector would be coordinated with the access controls being planned for in and southwest of Sherwood on Highway 99W.

Compatibility with natural resources

Compatibility with natural resources is dependent on factors that are related to how the proposed transportation improvement is designed, constructed and operated. The RUGGOs for natural

¹² I-5 to 99W Connector Fatal Flaw Analysis (December 1997). Pages 4-1

resources in this region reflect a desire to protect and preserve natural resources within and outside the urban growth boundary.

Preservation of natural resources through enforcement of Metro's Title 3 water quality and floodplain management program will ensure that these resources are minimally impacted by urbanization and the proposed transportation improvement. Title 3 requirements apply to all areas located within the Metro jurisdictional boundary. Additional work is being conducted by Metro to address regional Goal 5 and 4(d) rule issues which may provide additional protection for natural resource areas. This work is expected to be completed prior to further evaluation of the proposed transportation improvement as part of the I-5/99W Connector corridor refinement study. Design standards or policies that limit impervious surface coverage, stormwater runoff and the type and number of stream crossings and crossings of wildlife corridors will be addressed as part of Metro's Green Streets project. The Green Streets project will develop street design guidelines and best management practices that avoid, minimize and/or mitigate the impacts of transportation facilities on streams, wetlands and floodplains and wildlife corridors. This work is expected to be complete by June 2001, prior to further evaluation of the proposed transportation improvement as part of the I-5/99W Connector corridor refinement study.

Conclusion

For all of the reasons listed above, including the 1997 findings incorporated by reference, compliance with all currently applicable TPR provisions has been demonstrated. These findings support inclusion of the I-5 to 99W Connector in the 2000 RTP, including compliance with OAR 660-012-0070 and related goals for the potential alignment of this facility on rural lands outside the existing urban growth boundary.

Exhibit 'D'

Supplemental Sunrise Corridor Exception Findings

Introduction

The Sunrise Corridor is a proposed highway improvement on Oregon 212/224, between Interstate 205 and US 26. The need for an improvement in this corridor stems from the growth of traffic along existing Highway 212/224, and is included in the Oregon Highway Plan. This corridor is a primary connection between the Metro area and statewide destination to the east, along the Highway 26 corridor, and serves as an important freight route. There are no parallel rail facilities along this statewide corridor, and therefore the RTP has narrowed the statement of "need" to focus on a road improvement that would serve future freight and passenger demand that could not be adequately met by other modes.

While the acknowledgement of the 2040 Growth Concept and Concept Map already establishes that this proposed highway improvement is consistent with statewide planning goals, this document establishes additional findings of fact that address the goal exception requirements in OAR 660-12-070 for these portions of this corridor located outside the UGB. This document also establishes that alternatives for meeting the Highway 212 travel need within the existing UGB are not feasible, and should not be further studied at the corridor planning level. This distinction is a key consideration, since a broader corridor definition would have the effect of putting local improvements and land use plans in the less suitable urban corridors in limbo until a project can be defined to meet the Highway 212/224 need.

Much of the general Sunrise Corridor addressed in this document is located on rural lands outside of the urban growth boundary.¹ The expanded exception findings will be adopted as part of a series of amendments to the 2000 Regional Transportation Plan (RTP), in response to the LCDC acknowledgement process. This document addresses only compliance with the identified TPR standards. Compliance with RUGGOs and other applicable statewide planning goals is addressed in a separate findings document. These findings are not intended to replace more detailed exceptions findings that should be made at the corridor refinement planning level. Proposed amendments to the RTP will stipulate that the corridor refinement plan for the Sunrise address the exceptions requirements at the project level, but not revisit the broader findings made here.

The purpose of this two-tiered approach to exceptions findings is to narrow the scope of the refinement planning process, and thus better promote certainty in the development

¹ The general corridor is divided into two units. Unit 1 stretches from Interstate 205 to Rock Creek, and includes only a "new alignment" alternative that retains the existing Highway 212/224 as a local arterial route; Unit 2 extends from Rock Creek to US 26. This unit includes both an "existing alignment" and "new alignment" alternative. The "new alignment" contains two further options in the Damascus area, one bypassing Damascus to the north, and one to the south. One "new alignment" option exists to the east of 222nd Avenue.

within alternative corridors that can appropriately be eliminated at the TSP planning level.

A *Sunrise Corridor Draft Environmental Impact Statement* (DEIS) was prepared in 1993, and advances two alternatives for addressing the travel need in this corridor. The "existing highway" alternative simply expands the existing two-lane highway facility, adding two additional lanes capacity to the existing right-of-way. A second "new alignment" alternative follows the general corridor of the existing highway, adding a total of four lanes of new capacity, while retaining the existing route as a parallel arterial street. The "new alignment" alternative also includes additional right-of-way for two additional lanes beyond the four-lane configuration that was examined in the DEIS. The "new alignment" option also has two routing options in the portion of the corridor that is currently outside the metropolitan urban growth boundary (UGB).

The Sunrise Corridor improvement was incorporated into the *Region 2040 Growth Concept* in 1995 as a conceptual improvement to Highway 212 to maintain freight mobility and regional access from Clackamas County to the US 26 Corridor, which links the metropolitan area to central and eastern Oregon. The 2040 Growth Concept was acknowledged by the Land Conservation and Development Commission (LCDC) in 1996. The existing Oregon 213/224 highway is included in the 1999 Oregon Highway Plan as a statewide highway, and is also part of the National Highway System.

Both Sunrise DEIS alignments include interchanges in the Damascus and Boring areas. Since the DEIS was drafted in 1993, Metro has added new lands in the vicinity of the Sunrise Corridor to the urban area, and future UGB expansion is likely to occur on exception lands along the corridor. To anticipate urban expansion here, Metro has initiated a master-planning project for the Damascus and Pleasant Valley areas, primarily funded through the Federal Highway Administration TCSP program. The Oregon Department of Land Conservation and Development has awarded a similar grant to Clackamas County through the TGM program to examine opportunities for urbanization in this area, with an emphasis on improving the job/housing imbalance that exists in Clackamas County, and is expected to place a heavy commuting burden on highway connections to and from this part of the region. Therefore, the RTP does not attempt to identify access points within the Sunrise Corridor, and defers these decisions to the corridor refinement planning process.

² The general corridor is divided into two units. Unit 1 stretches from Interstate 205 to Rock Creek, and includes only a "new alignment" alternative that retains the existing Highway 212/224 as a local arterial route; Unit 2 extends from Rock Creek to US 26. This unit includes both an "existing alignment" and "new alignment" alternative. The "new alignment" contains two further options in the Damascus area, one bypassing Damascus to the north, and one to the south. One "new alignment" option exists to the east of 222nd Avenue.

General background

Purpose and Need for the Project

The proposed Sunrise Corridor highway improvement is an expansion of the existing Highway 212/224 route to meet future travel needs in this statewide corridor. At the time of the DEIS, this route served between 10,000 and 50,000 vehicles daily, with more than one third of these as “through” trips³. The travel corridor is the primary connection between US 26 and Interstate 205 in Clackamas County. It serves the needs of local commuters, local commerce and inter-regional traffic, including freight. In addition, it connects the region to recreational areas at Mt. Hood and in Central Oregon. These areas attract a large number of visitors throughout the year. Though overall traffic in the corridor drops slightly on the weekends, the percentage of vehicles destined for Mount Hood or points beyond climbs from 25% on weekdays to 45% on weekends. Transit service to several tourist destinations is already provided, via various privately operated ski buses, inter-city bus and urban transit service to Sandy. However, there are no existing rail lines in the corridor that would offer the opportunity for inter-city passenger rail, nor is it likely that such service could adequately meet the travel need over the dispersed area that the Highway 26 corridor serves.

A portion of the rural area in the corridor is also expected to urbanize in the future. Currently, the UGB is located just east of the Rock Creek junction of Highways 212 and 224. However, the acknowledged 2040 Growth Concept includes town centers at Damascus and Pleasant Valley, and employment land along Highway 212. The Metro Council took action toward this vision by expanding the UGB to incorporate Pleasant Valley and areas along Sunnyside Road two years ago. A concept plan to guide future urban expansions in this area is being developed by Metro, Clackamas County and the Cities of Portland and Gresham, and a coordinated effort by Clackamas County will also examine the potential for designating new employment areas along the Sunrise Corridor. The concentration of rural exception lands in this corridor relative to other rural areas adjacent to the UGB also make it a prime candidate for future UGB expansion. Consistent with the acknowledged 2040 Growth Concept, the Sunrise Corridor highway improvement is assumed in each of these studies as the backbone of future urban infrastructure.

While future urbanization will further drive the need for a major transportation improvement in this corridor, existing demand already establishes the need. The Sunrise DEIS concluded that the project was needed to efficiently accommodate existing and future traffic. The project was originally intended to meet the goals of the Access Oregon Highway (AOC) program by connecting economic centers in the state (in this case, Southeast Portland/Clackamas, Mt. Hood and Central Oregon), improving travel time, improving capacity and improving safety conditions. The project is also included in the

³ These data are from the Sunrise DEIS, and have not been updated from the 1992 traffic counts that were used in the DEIS. Current volumes are presumed to exceed these levels.

1999 Oregon Highway Plan as a statewide highway, and is also part of the National Highway System.

Based on the DEIS, and the critical function that the existing Highway 212/224 connection currently plays in this part of the region, Metro included the Sunrise Corridor highway improvement in the 2000 *Regional Transportation Plan* (RTP) as a critical element of the RTP "strategic system". This system consists of the region's most critical transportation improvements, and serves as the region's definition of an "adequate" system for the purpose of the state TPR. The RTP systems analysis concluded that the Sunrise improvement was necessary to maintain an operable roadway system in a rapidly growing Pleasant Valley/Damascus area⁴. The RTP also includes major transit improvements in the Pleasant Valley/Damascus area that augment the development of the Sunrise improvement and a network of arterial and collector streets, with implementation first in the Pleasant Valley area that has already been included in the UGB, and as urbanization occurs in other exception areas over the course of the 20-year plan period. The RTP envisions a gradual phasing of the project to discourage urbanization pressures in areas outside the UGB. The development of the Damascus town center will be linked to construction of the Sunrise improvements, with through traffic routed around the town center on the new facility only after the town center has developed to an adequate size, and the presence of through-traffic no longer benefits the economic viability of the center.

Sunrise Corridor Draft Environmental Impact Study

The *Sunrise DEIS* provides a comprehensive, multi-modal analysis and evaluation of alternative transportation options to address identified transportation needs in the Highway 212/224 corridor. An evaluation of four alternatives included:

- several highway alignments
- transit alternative
- transportation demand management (TDM) alternative
- transportation system management (TSM) alternative

The *Sunrise DEIS* summarizes the transportation problems within the study area and included the following conclusions:

- population and employment growth in the areas have been steadily increasing, and are expected to increase sharply with future expansion of the UGB
- significant rural residential development has occurred throughout the corridor, and more is planned, requiring additional access
- Mt. Hood and Central Oregon have become increasingly popular as tourist and recreational destinations, with the Sunrise Corridor providing one of two key connections between these areas and the metropolitan area
- the corridor's economic and population growth, increasing number of access to Highway 224 and 212, and overall traffic growth have combined to crease safety

⁴ The RTP systems analysis is highlighted in Chapters 3 and 5 of the 2000 RTP, and summary information on performance measures is included in Appendix 1.0 and the 2000 RTP *Level Service* maps.

and roadway deficiency problems that contribute to high accident rates in some sections of the existing highway

- the indirect connection between the Milwaukie Expressway (Oregon 224) and the Clackamas Highway (Oregon 212/224) creates congestion and safety problems
- if no action is taken in this corridor, nearly all of the signalized intersections in the corridor would be over capacity by 2015

The Metro Council and JPACT have not adopted recommendations identified in the *Sunrise DEIS*, except through adoption of the *1995 Interim Federal Regional Transportation Plan*. The highway and arterial improvements identified in the *Sunrise DEIS* were included in the *1995 Interim Federal RTP* project list with an understanding that these improvements would be evaluated consistent with performance measures and standards adopted in the 2000 RTP. The Clackamas County Commission approved a “preferred alternative” in 1996, after the *Sunrise DEIS* was prepared. A final DEIS was proposed for completion in 1998, but no funding for project construction has been allocated.

In 1998, ODOT completed a final findings report for the Sunrise Corridor under the Major Investment Study (MIS) provisions of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Under the new metropolitan planning rules promulgated by the Federal Highway Administration (FHWA) in response to ISTEA, a major investment study must be completed for major highway or transit improvements of substantial cost. The new MIS provisions are also applicable to those projects, like the Sunrise, for which the environmental review process has been initiated, but no record of decision or finding of no significant impact has been filed. The Sunrise MIS findings process included formal consultation with affected agencies, and re-established the purpose and need for the Sunrise Corridor project.

The need, function, mode and general corridor for the I-5/99W Connector were identified initially in the *Sunrise DEIS*. Additional technical information is included in the *Sunrise Corridor: Final Findings Report for the Major Investment Study Consultation*, complete by ODOT in 1998.

2000 Regional Transportation Plan

The 2000 Regional Transportation Plan reconfirms the need, mode and function of the Sunrise Corridor highway improvement to serve a variety of trip types and purposes, including through trips of statewide significance, regional trips and local trips. As part of the RTP analysis, the “southern alignment” option of the new alignment alternative were modeled, and interchange access points were modified in light of new policies governing urbanization in the Damascus area. However, portions of the southern option of the new alignment alternative continue to be located in rural lands outside the Damascus area, where urbanization is not expected to occur in the foreseeable future.

The 2000 RTP does not make a final “determination” authorizing any portion of the roadway to be located outside the urban growth boundary. Instead, the *2000 RTP* requires

that additional project development work be completed for the Sunrise Corridor, with specific design considerations outlined in the plan. This designation indicates that need, mode, function and general location have been established for the corridor, but that further work is needed to identify a specific alignment. The 2000 RTP concludes that the full Sunrise Corridor improvement from I-205 to Highway 26 is needed during the 20-year plan period. However, it should be implemented with a design and phasing that reinforces development of the Damascus town center, and protects rural reserves from the effects of urban traffic. Though a draft environmental impact statement has been prepared for this corridor, the RTP requires that the final environmental impact statement consider the following design elements:

- construct the segment from I-205/Highway 224 interchange to existing Highway 212 at Rock Creek as funds become available
- preserve right-of-way (ROW) from Rock Creek to Highway 26 as funds become available
- consider phasing Sunrise construction as follows: (a) complete I-205 to Rock Creek segment first, followed by (b) ROW acquisition of remaining segments, then (c) construction of 222nd Avenue to Highway 26 segment and (d) lastly, construction of middle segment from Rock Creek to 222nd Avenue as Damascus town center develops
- consider express, peak period pricing and HOV lanes as phases of the Sunrise Corridor are constructed
- reflect planned network of streets in Damascus/Pleasant Valley area in refined interchange locations along the Sunrise Route, including a connection at 172nd Avenue, the proposed major north/south route in the area
- implement bus service in parallel corridor from Damascus to Clackamas regional center via Sunnyside Road
- avoid premature construction that could unintentionally increase urban pressures in rural reserves east of Damascus
- examine the potential for the highway to serve as a "hard edge" in the ultimate urban form of the Damascus area
- develop a concurrent plan to transition the function of the existing Highway 212 facility into a major arterial function, with appropriate access management and intersection treatments identified

Section 6.7.5 of the 2000 RTP recognizes that the need, mode, function and general location for the Sunrise Corridor highway improvement have been established. However, more detail is needed as part of project development phase before construction can occur. The project development stage would include specific design details, project location or alignment, access points and determination of impacts on the natural and built environment.

For the purpose of compliance with the state transportation planning rule (TPR), Metro has proposed additional considerations to occur as part of the corridor refinement, including an IGA for a Green Corridor plan for the portion of the Sunrise located east of Damascus. Title 11 of Metro's Urban Growth Management Functional Plan (UGMFP)

set forth further limitations on urbanization, should additional portions of the Sunrise Corridor be included in a future expansion of the urban growth boundary. These provisions limit urban development in newly urbanized areas until local plans have been updated to demonstrate adequacy of urban services and urban land use designations that are consistent with the 2040 Growth Concept. This process would also include consistency with the 2000 RTP, including consideration of planned transportation corridors, such as the Sunrise.

In summary, the need, mode, function and general location have been established for the *Sunrise Corridor DEIS* and the general location in the 2000 RTP. The corridor has been acknowledged in the 2040 Growth Concept as consistent with statewide planning goals. In the alternative, if the portions of the general location of the Sunrise Corridor outside the UGB are not acknowledged, this exception establishes supporting findings for the portion of the Sunrise Corridor located on rural lands outside of the urban growth boundary.

Summary of Relevant State Land Use Goals and Administrative Rules, and Findings of Compliance

OAR 660-12-070(1)

OAR 660-12-070(1) requires an exception for siting transportation facilities on rural lands that do not meet the requirements of 660-12-065.

The list of permitted transportation improvements does not include new four-lane limited-access highways on rural lands; therefore, OAR 660-12-065 does not apply. Instead, the exceptions standards in OAR 660-12-070 apply. The Sunrise Corridor satisfies OAR 660-12-070(1) because an exception will be taken consistent with the requirements of OAR 660-12-070.

OAR 660-12-070(2)

OAR 660-12-070(2) requires that the exception be taken pursuant to ORS 197.732(1)(c), Goal 2, OAR 660, Division 4 and OAR 660, Division 12.

Because OAR 660-04 and OAR 660-12 implement Goal 2 and ORS 197.732(1)(c), a demonstration of compliance with these administrative rule requirements demonstrates compliance with all of the review standards set forth in statutes.

OAR 660-12-070(3)

OAR 660-12-070(3) concerns exceptions that are “adopted as part of a TSP or refinement plan” and requires an exception to “at a minimum, decide need, mode, function and general location for the proposed facility.”

The need, mode, function and general location have been identified in accordance with OAR 660-12-070 as documented in the 1993 *Sunrise Corridor DEIS* and 1998 Sunrise MIS Final Findings Report. The need, mode, function and general location of the Sunrise Corridor are also identified in the 2000 Regional Transportation Plan, which serves as the regional TSP for the Portland metropolitan area.

The need for the Sunrise Corridor highway improvement is to accommodate planned growth in the area and eliminate safety problems on the existing Highway 212 (*See, p of the Sunrise DEIS*). The function of this highway improvement is to connect the southeast portion of the Portland metropolitan area with points east on the Highway 26 corridor, including neighboring cities in Clackamas County, the Mt. Hood recreation areas and Central Oregon, consistent with the 1999 Oregon Highway Plan. (*See, p of the Sunrise DEIS*)

- (a) The general location of the Sunrise Corridor is identified at Section 6.4.1, Figures 1.1 through 1.15 and Appendix 1.1 of the *2000 RTP*, and shown on Figure 1 of these findings. The general location of this corridor was evaluated in four rounds of RTP modeling, and is documented in both Appendix 1.0 and on the *2000 RTP* Level of Service maps. The evaluation of the corridor is summarized in Section 3.4.4 (preferred system) and Section 5.3.3 (priority system) of the *2000 RTP*, based on 2-hour peak level of service analysis, PM vehicle volumes and select link analysis for Rounds 1-4 of RTP modeling..
- (b) The conceptual size, design and capacity (mode) of the Sunrise Corridor highway improvement is assumed to be a four-lane, limited access, divided highway in the four rounds of *2000 RTP* modeling and analysis, and in the project list shown in Appendix 1.1. These size, design and capacity assumptions are consistent with southern new alignment option in the Sunrise DEIS, although some interchange configurations are slightly modified, based on updated plans for urbanization in the Damascus area in the 2040 Growth Concept.
- (c) The process for selection of the precise decision and location of this facility in project development is set forth in Section 6.7.3, 6.7.4 and applicable portions of 6.7.5 that relate to the Sunrise Corridor. The standards for selection of the precise design and location include federal ("NEPA") final environmental impact statement rules, applicable statewide land use goals and regional goals, including the 2040 Growth Concept. Further goals 3, 11 and 14 exceptions will be needed if the location of the final alignment is outside the UGB.
- (d) No land use regulations implementing this goal exception could be included in this regional TSP to identify mitigation measures to offset environmental, economic and social or energy impacts, or to assure compatibility with adjacent uses until the final alignment is selected in subsequent project development.

This level of detail is consistent with OAR 660-12-070(3)(a), which requires exceptions adopted as part of a TSP or refinement plan to decide need, mode, function and general location. Consistent with subsection (a) of this section, the Sunrise Corridor adopted in the 2000 RTP defines the outer limits of the proposed improvement, as defined by the northern and southern extent of the combined alternative routes.

OAR 660-12-070(4)

Summary of OAR 660-12-070(4) and related ORS 197.732(1)(c)(A); Goal 2, Part II(c)(1); OAR 660-04-020(2)(a); and OAR 660-04-022:

OAR 660-12-070(4) requires the exception analysis to include the identification of need for the Sunrise Corridor that is consistent with and meets the intent of OAR 660-12-030(1). OAR 660-12-070 (4) states:

“To address Goal 2, Part II(c)(1), the exception shall demonstrate that there is a transportation need identified consistent with the requirements of 660-12-030 which cannot be accommodated through one or a combination of the following measures not requiring an exception:

- (a) alternative modes of transportation,
- (b) traffic management measures and
- (c) improvements to existing facilities.”

In addition, OAR 660-12-030(1) requires that a TSP identify transportation needs relevant to the planning area and the scale of the transportation network being planned, including state, regional and local transportation needs for movement of goods and services.

Finding of compliance with OAR 660-12-070(4) and related ORS 197.732(1)(c)(A); Goal 2, Part II(c)(1); OAR 660-04-020(2)(a); and OAR 660-04-022:

The transportation need for the Sunrise Corridor improvement, consistent with OAR 660-12-070(3), is described in detail in the 1993 *Sunrise Corridor DEIS* and 1998 Sunrise MIS Final Findings Report. The *Sunrise Corridor DEIS* describes the performance of several alternatives with three general alignments, and why alternative modes, TSM, TDM and improvements to existing highways and arterial streets, alone or in combination, cannot reasonably accommodate the identified transportation need. The *Sunrise DEIS* concludes that a new highway facility is a necessary part of the transportation strategy for this part of the region. These findings are echoed in the Sunrise MIS Final Findings Report.

OAR 660-12-070(4) requires that an exception analysis include the identification of need for the Sunrise Corridor improvement that is consistent with and meets the intent of OAR 660-12-030(1). The Sunrise improvement is consistent with OAR 660-12-030(1) because it is based on the *Sunrise DEIS*, the Sunrise MIS Final Findings Report and the 2000

RTP, each of which considered and identified transportation needs relevant to the study area and the scale of the transportation network being planned.

To summarize, the Sunrise Corridor improvement would serve regional and state transportation needs, moving people and goods between the Portland metropolitan region and points east along the Highway 212 and 26 corridors, the Mount Hood recreation areas and central and eastern Oregon. A limited-access facility is warranted to preserve the function of the roadway to facilitate regional and inter-regional trips.

OAR 660-12-070(5)

Summary of OAR 660-12-070(5) and related ORS 197.732(1)(c)(B); Goal 2, Part II(c)(2); and OAR 660-04-020(2)(b):

OAR 660-12-070(5) provides that to address Goal 2, Part II(c)(2), the exception must demonstrate that non-exception locations cannot reasonably accommodate the proposed transportation improvement or facility. Similarly, OAR 660-04-020(2)(b) requires justification why “areas which do not require a new exception cannot reasonably accommodate the use.”

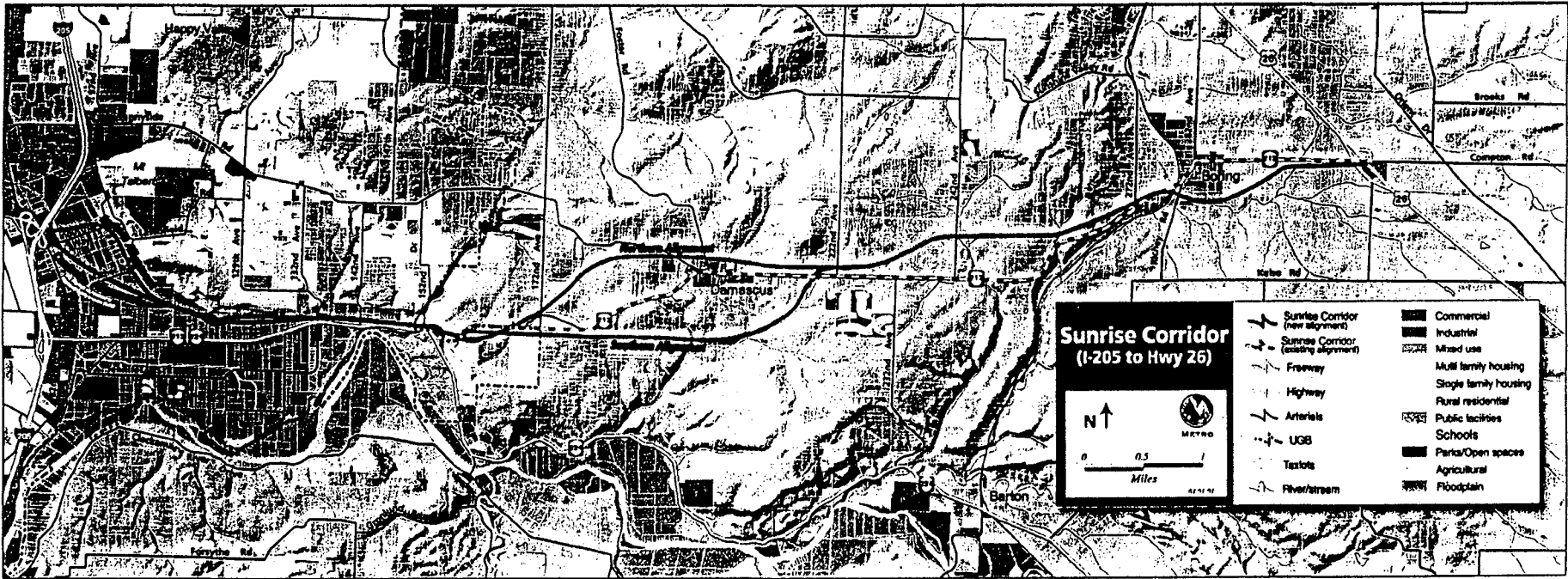
Finding of consistency with OAR 660-12-070(5) and related ORS 197.732(1)(c)(B); Goal 2, Part II(c)(2); and OAR 660-04-020(2)(b):

Acknowledged by DLCD in 1996, the 2040 Growth Concept includes the Sunrise Corridor highway connection between Interstate 205 and Highway 26, following the Highway 212 corridor. The corridor is generally characterized by exception lands, which resulted in much of the area being designated “urban reserve” in the 2040 Growth Concept. While the “urban reserve” designation was invalidated in a recent UGB decision, the area along the Sunrise Corridor continues to be a primary candidate for urbanization from I-205 to 122nd Avenue.

During the past thirty years, much of the rural land in the vicinity of Highway 212 was partitioned into relatively small parcels of one to five acres, and developed with single family homes. As a result, the rural zoning in this area is a patchwork of resource and exception lands as shown in Figure 1. The rural land uses are further compromised by commercial development in the Damascus and Boring districts. The remaining resource lands in the area that are adjacent to the existing Highway 212 can be grouped according to contiguous parcels, as follows:

1. **Group 1** (near 152nd Avenue) - this group includes [4-7] parcels, for a total of [blank] acres. Several of the parcels are small, and developed with rural residential uses.
2. **Group 2** (near 222nd) - this group includes 6 parcels, for a total of [blank] acres. Some of these parcels are used for agriculture.

Figure 1



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3. **Group 3** (near 232nd Avenue) - this group includes [4-11] parcels, for a total of [blank] acres. Some of these parcels are used for agriculture.
4. **Group 4** (west of Boring) - this group includes 8 parcels, for a total of [blank] acres. Some of these parcels are used for agriculture.
5. **Group 5** (east of Boring) - this group includes 7 parcels, for a total of [blank] acres. Some of these parcels are used for agriculture.

A Sunrise Corridor improvement along the existing Highway 212 route would benefit from using existing right-of-way that is already developed for transportation use. However, additional right-of-way would be needed to improve the facility to a proposed four lanes, and thus resource lands along both sides of the existing route would be impacted. The existing right-of-way ranges from 80 to 100 feet in width. A four-lane facility could be expected to range from 120 to 160 feet in width, requiring 20-50 feet of additional right-of-way on either side of the existing alignment.

Because the draft *Sunrise DEIS* included an existing alignment alternative, these exception findings are limited to that alternative. The *2000 Regional Transportation Plan* analysis does not support a particular alignment, since only a conceptual connection between Interstate-205 and Highway 26 was modeled. While the southern alignment is portrayed on the RTP system maps as a conceptual route, the plan specifically states in Section 6.7.5 that a Sunrise Corridor refinement plan is required, and should be accomplished through a final environmental impact statement. Therefore, further exception findings would be required upon completion of a final Sunrise environmental impact statement, should an alignment other than the existing Highway 212 route be selected. These additional findings would address why "areas which do not require a new exception cannot reasonably accommodate the use," as required by OAR 660-12-070(5).

OAR 660-12-070(6)

Summary of OAR 660-12-070(6):

OAR 660-12-070(6) requires the exception to justify the thresholds chosen to judge whether an alternative method or location identified under OAR 660-12-070(4) or (5) cannot reasonably accommodate the proposed transportation need or facility. These thresholds include transportation need, cost, operational feasibility, economic dislocation and other relevant factors such as impacts on planned urban growth patterns and ability to achieve VMT objectives.

Finding of consistency with OAR 660-12-070(6):

The most relevant thresholds for the Sunrise Corridor improvement are the nature of the transportation need, operational feasibility and impacts on planned urban growth patterns.

- **Transportation Need and Operational Feasibility**

As noted in the *Sunrise DEIS*, the Sunrise MIS Final Findings Report and the 2000 RTP, the proposed principal arterial connection is needed to serve state and regional transportation needs. The existing Highway 212 serves a combination of statewide travel, regional travel and local trips. The *Sunrise DEIS* and the 2000 RTP demonstrate that these needs cannot be reasonably met through solely through alternative modes of transportation, including significantly expanded transit service, demand management or through facilities serving local needs. However, these transportation alternatives are needed in conjunction with the Sunrise Corridor improvement, and are included in the 2000 RTP. These complementary improvements would include Frequent Bus service on Sunnyside Road and Regional Bus on most major routes in the corridor.

Further, while the DEIS does not examine corridors such as Sunnyside Road, Foster/Powell and Hogan Road explicitly, these corridors are examined in Section 3.4.2, 3.4.3 and 3.4.4 of the 2000 RTP, and a number of improvements are recommended in these complementary routes to address forecasted travel demand during the 20-year planning period. However, it would be inappropriate to suggest that any of these routes could be considered "alternatives", since each serves a discrete portion of the region that is physically separated by topography from the Sunrise Corridor.

While the Foster/Powell and Sunnyside routes connect to the Sunrise Corridor near Damascus, these are major arterial routes that are inappropriate for major highway expansion, while the existing Highway 212/224 route within the UGB has already been largely built to highway standards. Further, both the Foster/Powell and Sunnyside routes would impact larger areas of resource land than the Sunrise

Corridor, since both routes traverse rural areas in the southern portion of Pleasant Valley, joining the Sunrise in the vicinity of Damascus.

Similarly, while the Hogan corridor in Gresham does connect to US 26, it serves an entirely different part of the region, and full construction of the proposed Mt. Hood Parkway in this corridor was not included in the RTP definition of 20-year transportation needs.

In fact, these conclusions are self-evident, since the Sunrise Corridor improvement is a response to travel demand within an existing state highway corridor, and thus improvements within the general corridor as it currently exists are the most efficient and direct at addressing existing and future travel demand.

- **Impacts on Planned Urban Growth Patterns**

The Sunrise Corridor improvement is also closely linked to the development of the land use components off urban Clackamas County in the 2040 Growth Concept. The improvement is the freight backbone of the Clackamas industrial corridor, and the growth concept and *2000 Regional Transportation Plan* link the phasing of the Sunrise improvements to the gradual development of the Damascus town center and adjacent employment areas, as follows:

1. Completion of the I-205 to Rock Creek Junction segment in the short term, to immediately improve freight mobility through this heavily congested portion of the Highway 212 corridor.
2. Acquire right-of-way for the remainder of the Sunrise improvement prior to urbanization, with consideration given to using the Sunrise as a "hard edge" to future urbanization in the Clackamas area.
3. Completion of the 222nd to Highway 26 segment in the mid-term, replacing existing Highway 212 for freight, regional and statewide trips.
4. Completion of the Rock Creek Junction to 222nd segment in the long-term, based on the level of development in the Damascus town center, and the need to construct a through-trip facility that bypasses Damascus. Completing this segment last also minimizes the effects of adding capacity in this corridor on rural activities, since the improvements would operate near capacity at the time of construction, by design.

In addition to these considerations, Title 11 of the Urban Growth Management Functional Plan (UGMFP) requires a broad array of advance planning in urbanizing areas. In the case of the Sunrise, future planning for the corridor at the time of urbanization would be required to consider the corridor planning called for in the RTP, and could include right-of-way protection if refinement planning for the corridor has already occurred. Further, Title 5 of the UGMFP calls for special Green Corridor protections along rural highways that link to the Metro region. Metro has proposed revisions to the RTP that would call for a Green Corridor IGA, consistent with Title 5, within the context of the Sunrise Corridor refinement plan.

These provisions in the 2040 Growth Concept and 2000 Regional Transportation Plan establish both a need for the Sunrise improvements, and a phasing mechanism that implements the improvements in a way that complements planned urbanization, while protecting rural areas from urban traffic pressures.

OAR 660-012-0070(7) and (8)

Summary of OAR 660-012-0070(7) and (8) and related ORS 197.732(1)(c)(C) and (D); Goal 2, Part II(c)(3) and (4); and OAR 660-04-020(2)(c) and (d):

OAR 660-012-0070(7) provides that to comply with Goal 2, Part II(c)(3), the exception must compare the economic, social, environmental and energy consequences of the proposed location with other locations requiring exceptions. The exception must discuss "whether the net adverse impacts associated with the proposed exception site are significantly more adverse than the net impacts from other locations which would also require an exception." The proposed exception would fail only if the impacts associated with it are "significantly more adverse" than the other identified exception sites. The evaluation of consequences may be generalized rather than site-specific.

OAR 660-012-0070(8) provides that comply with Goal 2, Part II(c)(4), the exception must describe the adverse effects that the proposed transportation improvement is likely to have on the surrounding rural lands and land uses, including increased traffic and pressure on non-farm or highway-oriented development on areas made more accessible by the transportation improvement. This section also requires, as part of the exception, facility design and land use measures which minimize accessibility of rural lands from the proposed transportation facility and support continued rural use of surrounding lands.

OAR 660-04-020(2)(c) is similar to OAR 660-012-0070(7). It requires a general description of the character of each alternative area and discussion of the advantages and disadvantages of the various alternatives, including positive and negative consequences. Like OAR 660-012-0070 (7), the exception must explain why the use at the chosen site is not "significantly more adverse" than would typically result from the same proposal being located at one of the exception sites. Considerations include which resource lands are most productive; the ability to sustain resource uses near the proposed use and long-term economic impact on general area resulting from removal of land from the resource base.

Similarly, OAR 660-04-020(2)(d) requires the exception to explain how the proposed use is compatible with other adjacent uses or will be rendered compatible through measures designated to reduce adverse impacts. "Compatible" is not intended to mean no interference or adverse impacts of any type with adjacent uses. The proposed transportation improvement must be determined to either be compatible with the existing uses or can be rendered compatible through measures designed to reduce adverse impacts.

Finding of compliance with OAR 660-012-0070(7) and (8) and related ORS 197.732(1)(c)(C) and (D); Goal 2, Part II(c)(3) and (4); and OAR 660-04-020(2)(c) and (d):

Final determination of a specific alignment for the Sunrise Corridor improvement is deferred to further study in Section 6.7.5 in Chapter 6 of the 2000 RTP. Because no specific alignment is proposed at this time, it is premature to address these exception standards. If project development results in an alignment outside the UGB, a further exception applying these standards will be required. This section of the RTP was written to include specific considerations for the refinement planning process to ensure that OAR 660-12-0070(7) and (8) are expressly met, including economic, social, environmental and energy impacts, and to ensure that future land use decisions in the area do not preclude ultimate construction of recommended projects.

Further, Titles 5 and 11 of the Urban Growth Management Functional Plan (UGMFP) set forth provisions for Green Corridor planning and future plans in urbanizing areas that provide the Metro region with unique tools to prevent land use changes that could preclude construction of the planned facility, and careful consideration of the land use effects of proposed improvements.

A preliminary analysis of the Sunrise Corridor shows the following potential adverse impacts of the limited access highway, depending on the alignment chosen as part of the project development stage:

- **Agricultural and Forest Lands**

The Sunrise Corridor improvement could have direct impacts on some agricultural or forest lands, designated EFU, EFC, AGF or AF-20, depending on the alignment chosen for the highway improvement as part of the project development stage. Several parcels designated as EFU lands are located in the eastern portions of the corridor, with nurseries as the predominate agricultural use. Indirect impacts could range from the loss of crop income from the local economy to the disruption of farming activities such as crop spraying and harvesting. However, it is important to note that the eastern portion of the Sunrise Corridor represents some of the most disrupted agricultural land in the vicinity of the Metro UGB. Exception lands are predominant here, with few areas where more than two or three parcels of resource land are contiguous. This compromised quality of resource land is the primary reason why UGB expansions are focused in this area, and conversely, why the Sunrise Corridor improvements have received a high priority within the 2000 RTP.

The predominate uses in the corridor are rural residential, rural commercial, rural industrial and scattered areas of commercial agriculture. The Damascus and Boring commercial districts are urbanized, rural centers of commerce that serve both rural

and urban populations. The Boring district also includes a number of industrial uses. Both districts include institutional uses, such as schools, fire stations and a post office. Many exception-land parcels have residential development and related improvements, approaching urban densities in several areas. In many areas, this development has been constructed with urban-style street improvements, and homes developed on parcels as small as 1 acre.

While the existing alignment alternative may have the least impact on farm and forest resource lands, and other natural resources, it is likely the most costly and disruptive to existing development in the corridor. Therefore, the southern and northern new alignments will also be evaluated for impacts on rural resources as part of the Sunrise Corridor project development phase.

As mentioned previously, the Sunnyside, Foster/Powell and Hogan Road corridors would not only provide unsuitable transportation alternatives to improvements within the existing Sunrise Corridor, they would also have much more significant impacts on existing urban areas. Unlike the existing Highway 212/224 corridor, the urban portion of these routes are built as surface streets, and would require massive reconstruction to function as highway corridors. Further, the Sunnyside and Foster/Powell alternatives would also impact greater amounts of rural resource land, since both routes traverse the southern Pleasant Valley area before connecting to the Sunrise Corridor near Damascus.

Ultimately, project design of the preferred alignment of the Sunrise Corridor improvements will need to determine whether reasonable mitigation measures can minimize operational impacts, support planned land use, enhance compatibility with existing land uses and avoid splitting natural resource areas. The specific alignment will be determined by ODOT following preparation of a design-level (Tier II) environmental analysis in a manner consistent with federal requirements set out in the National Environmental Policy Act and implementing regulations, including public and agency involvement processes and opportunity for public comment. This process also will require ODOT to address and show compliance with all applicable local government and agency ordinances, regulations and permit requirements, including provisions for mitigation of adverse impacts.

- **Natural resources**

Natural resources could be affected by an alignment within the southern corridor due to potential fragmentation or alteration of wildlife habitat, loss of riparian areas, alteration of wetlands, stormwater runoff and stream or floodplain crossings, depending on the alignment chosen for the limited access expressway at the project development stage.

The corridor crosses several areas designated as stream protection corridors in Title 3 of the 1996 Urban Growth Management Functional Plan. Environmental impacts in these and other natural resource areas would be addressed during the project development phase. Design standards or policies that limit impervious surface coverage, stormwater runoff and the type and number of stream crossings and crossings of wildlife corridors will be addressed as part of Metro's Green Streets project. The Green Streets project will develop street design guidelines and best management practices that avoid, minimize and/or mitigate the impacts of transportation facilities on streams, wetlands and floodplains and wildlife corridors. This work is expected to be complete by June 2001, prior to further evaluation of the proposed transportation improvement as part of the Sunrise Corridor refinement study.

Conclusion

The corridor has been acknowledged as consistent with statewide planning goals by the Land Conservation and Development Commission as part acknowledging the 2040 Growth Concept. The *2000 Regional Transportation Plan* recognizes that the need, mode, function and general location for the Sunrise Corridor highway improvement have been established in the *Sunrise DEIS*, and based on additional analysis conducted as part of the *2000 RTP* update. Therefore, these additional findings augment the 1996 acknowledgement of the Sunrise Corridor improvements as an element of the 2040 Growth Concept.

However, more detail is needed as part of project development before construction can occur. The project development stage would include specific design details, a project location or alignment, access points and determination of impacts on the natural and built environment, and farm and forest resource lands.

FARExchange

MAY 2001, VOL. 28, NO. 2

REGIONAL TRANSPORTATION PLAN: A 20-YEAR BLUEPRINT FOR ACTION

Last fall, *Money Magazine* rated Portland as the number one livable city in America. They raved about the role of transit in building the region for people.

"Let's start with the great character of the city itself. Three - decades of keen planning have reined in urban sprawl and given rise to a mini-metropolis with short, easy-to-stroll blocks renowned for their java joints, brewpubs, and bookstores. A superb light rail network and a new streetcar system are helping to make it a cinch to get around."

Tri-Met has been a strong, active partner in the region during the past decades of land use and transportation planning and has positioned itself to continue that work. In fact, our commitment to managing growth with transit served as the stepping stone for the region's land use vision, the 2040 Growth Concept. The basic philosophy is to preserve our access to nature and build better communities for the people who live here today and who will live here in the future.

Last August, the Metro Council and a committee made up of elected officials and agency heads, including General Manager

Fred Hansen, adopted the **Regional Transportation Plan (RTP)**. The plan looks at future transportation needs through the year 2020 - when our children and grandchildren will be using the transportation system that we build.



Planned mixed-use pedestrian-friendly development around the Portland Blvd light rail station on Interstate MAX.

While recognizing that the car will continue to be the primary choice of personal travel, the RTP provides a balanced range of transportation choices. It sets clear goals for all forms of urban travel: cars, buses, light rail, walking, bicycling and trucking. It

includes a list of strategies for local and regional transportation changes, as well as specific projects.

Why does it matter? With a growing population, we can't solve congestion, but we can provide a transportation system with many choices for travel. The RTP is a guide for the region's cities, counties, Tri-Met, the Oregon Department of Transportation and the Port of Portland. It clearly sets transportation strategies in the urban area for the next 20 years. Decisions made today about how to make room for future growth and travel will have lasting impacts on our environment and quality of life. The RTP is a big part of the region's overall strategy to protect our valued livability.

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TRI-MET



THE REGIONAL TRANSPORTATION PLAN SETS THE LONG TERM GOALS

The Regional Transportation Plan (RTP) sets the long term goals for how Tri-Met will grow. The plan places high expectations on Tri-Met.

We are expected to help move 45 percent more people every day, increase transit service by 45 percent, and cover more area. The region would like to see the commute trips by transit to downtown Portland increase from 35 percent to about 60 percent of all trips.

These numbers may seem unrealistic, but if you look back 26 years to 1975, the average daily ridership was 101,900. Today we are at 265,300 riders. That is a 62 percent increase. Twenty-six years ago we had 514 buses over 677 miles of routes. Today we have 702 buses covering 850 miles of routes. The percentage of riders into downtown was 18 percent and today it is 35-40 percent.

In 1975 we were building the transit mall, a large capital construction project that reshaped downtown Portland. Funding from the proposed Mt. Hood Freeway was withdrawn and transferred

to Tri-Met to begin study of the Banfield light rail line. Today we are building light rail along Interstate Avenue and are considering our transit options along South Corridor to again help shape the future of our region.

We have managed to improve transit service, convenience and reliability over

customer needs. We have implemented these principles on McLoughlin Blvd and the proposed 2001 September changes on Barbur Blvd/Hwy 99W from downtown Portland to Sherwood (see articles). We need to continue to build on these successes.

We can *build the total transit system* by providing more bus shelters and amenities as well as constructing light rail in North Portland or working with the City of Portland on streamlining corridors.

Finally, we must *maintain strong fiscal controls* in order to grow service, customer amenities, and customer service over the next twenty years. We will continually identify where we can become

more efficient internally as well as work with the region to tap new revenue sources for bus purchases, bus stops, and provide more service on the street.

The region is expecting big payoffs to using transit as one of the tools in maintaining livability of this region. Working together, day by day, we can meet and exceed these expectations.

The region is expecting big payoffs to using transit as one of the tools in maintaining livability of this region. Working together, day by day, we can meet and exceed these expectations.

the years, but how can we meet the challenges laid out by the RTP? As we did in the past, step by step. What seems like small improvements add up to big payoffs.

The nine principles that I laid out at the beginning of the year are things that we need to keep in mind. For instance, *focusing on service quality* and

TRI-MET'S ROLE IN THE FUTURE



Transit has been a tool to help fight traffic congestion, air pollution and the increased costs of building new roads and utilities.

Over the past 25 years, public transit has become more and more important to our region's transportation system. Since the Portland Transit Mall was built in the 1970s, bus ridership has grown steadily. With the addition of light rail and the upcoming streetcar line, the types of transit service offered in Portland have also increased.

Metro and Tri-Met have worked with residents and government partners to define a long-term transit strategy for the region. Future transit service will focus on regional centers, such as Gresham, Beaverton, Clackamas and Portland's central city. Improvements planned for the next 20 years will provide transit service that better meets the needs of a growing region by offering:

- Faster, more direct connections to different communities, minimizing the need to travel to downtown Portland to transfer.

- Better routes to serve neighborhoods, employment areas and schools.
- Efficient, reliable service with adequate space for passengers at all times.
- Improved bus connections for better access to light rail.
- New low-floor, air-conditioned buses with security cameras and bigger windows, providing service to all, including those using mobility devices.
- Improved bus stops, with shelters, lighting, phones, maps, schedules, better sidewalks and electronic signs with accurate bus arrival times.
- Support of transportation management associations to improve commute options for employees.

On an average weekday in 2000, more than 210,000 riders used the

bus and rail systems. By 2020, that number is expected to increase to more than 500,000 riders.

The RTP calls for light rail and bus rapid transit to become the backbone of the transit system, connecting regional centers to each other and to the central city. It also incorporates new ideas, such as commuter rail, bus rapid transit and Streamline to expand transit use in our growing region.

The following types of transit projects or expansions are planned for the metropolitan area.

Light Rail Transit

Light rail currently provides speedy and convenient service between downtown Portland and Gresham and Hillsboro regional centers. In September, an extension from Gateway to Portland International Airport will open, expanding the system's reach. Construction on the Interstate MAX extension from the Rose Quarter to the Expo Center has begun. Other extensions of the light rail system are under study.

Commuter rail

Commuter rail uses existing railroad tracks for diesel-powered passenger train cars that typically run long distances, mostly during rush hours. Washington County is seeking funding for an 18-mile commuter rail line from Beaverton's MAX station to Wilsonville, with a possible future extension south to Salem. Corridors for other commuter rail studies could include McMinnville to Portland, Lake Oswego to Portland and Canby to Portland.



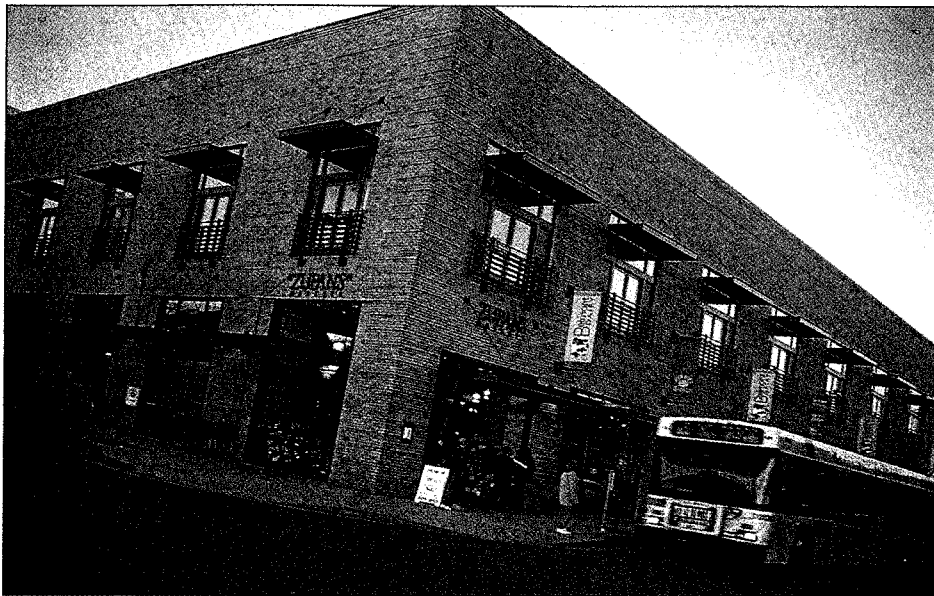
Streetcars

Streetcars will return to the Portland area Fall 2001. Streetcars run on new tracks set in existing streets. A new central city streetcar line will connect Portland State

Sherwood to Portland (see related article on page 5).

Frequent Bus

"Frequent bus" is high-frequency local bus service along main streets



Nearly one-third of the residences built in the last five years were through redevelopment and infill, helping drive strong growth in ridership.

University and downtown Portland to Good Samaritan Hospital in Northwest Portland. A streetcar line connecting North Macadam to Portland State University is under consideration.

Rapid Bus

New rapid bus service provides fast, frequent and reliable service with limited stops along major transit corridors, like Tri-Met's Streamline program. The service may run on reserved bus lanes, known as bus rapid transit. Stops along these lines will include schedule kiosks, ticket machines, lighting, benches, covered shelters and bike parking. Through the Streamline program, we are already making many of these improvements on Line 12 along Barbur Blvd and Hwy 99W from

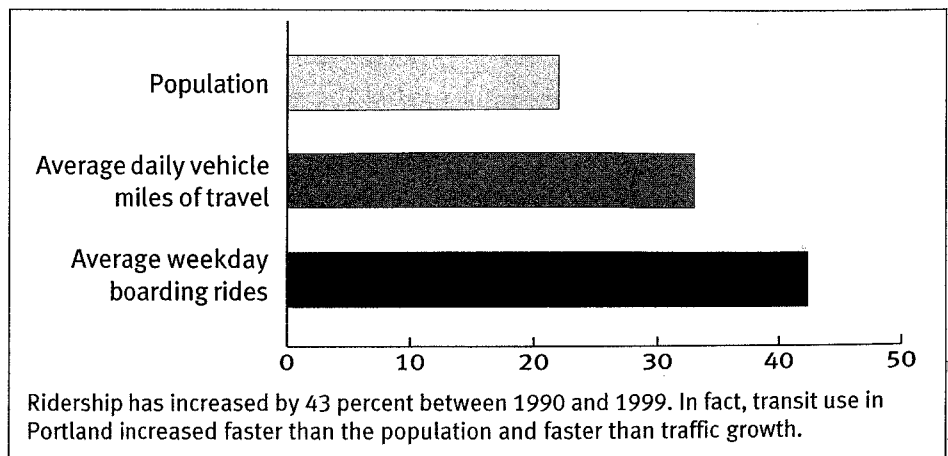
or major routes with frequent stops. Stops will feature covered bus shelters, lighting, benches and curb extensions. Frequent bus service will be enhanced on Sandy Boulevard, Killingsworth/82nd, MLK/Lombard, Hawthorne Boulevard, Division Street, Hall Boulevard, Kruse Way and Highway 43 and Belmont/NW 23rd Avenue, as well as Beaverton-Hillsdale Highway and Tualatin Valley Highway.

New Buses

One of Tri-Met's major funding decisions is to purchase more buses to alleviate rush-hour overcrowding on the region's most-used transit routes. Providing new buses during peak use is one of the best ways to keep and gain new ridership. Service improvements during off-peak times are also being funded, as well as bus service to new areas. Added bus shelters and better schedule information will also be provided.

Transportation Management Associations

The RTP also calls for more Transportation Management Associations (TMAs), which are private enterprises or private/public partnerships that offer alternatives to employees driving to work alone during rush hour. TMAs can promote ride sharing, transit, walking, biking, work schedule changes and telecommuting to reduce rush hour traffic congestion. The goal is that one TMA will be located in each major employment/residential/commercial activity center. Currently Tri-Met works in partnership with five TMAs: Lloyd Center, Swan Island, Westside Transportation Alliance, Columbia Corridor, and Tualatin.



BARBUR BLVD/Hwy 99W CORRIDOR

Tri-Met, the State of Oregon, and the region jointly committed to fund transit improvements on Barbur Blvd/Hwy 99W from downtown Portland to the City of Sherwood. The Barbur Blvd corridor serves an important regional role connecting suburban communities together and providing easy access to downtown Portland. This corridor has good transit ridership now and the potential to be even better.

To improve service and boost ridership, we are proposing to simplify the historically confusing transit service along Barbur Blvd and improve the inadequate bus stops and long delays. This will enhance transit service for the estimated 26,000 people who live and work within a quarter-mile of Barbur Blvd/Hwy 99W.

Tri-Met's Service Planning and Capital Project departments are working in cooperation with representatives from five cities, two counties and the State Department of Transportation, with project funding coming from Tri-Met, state and federal sources to implement the changes.

Tri-Met conducted extensive public outreach on proposed improvements, which include:

- Running Line 12 between Tigard and downtown Portland at 15 minute headways during the day and every 30 minutes after 9:00 p.m. seven days a week, and running every 60 minutes to Sherwood.
- Combining Line 12-Express and 95X into one line that runs every 5 minutes between

Sherwood, Portland Bus Mall, and Lloyd District via Barbur Blvd during weekday morning and afternoon rush hours.

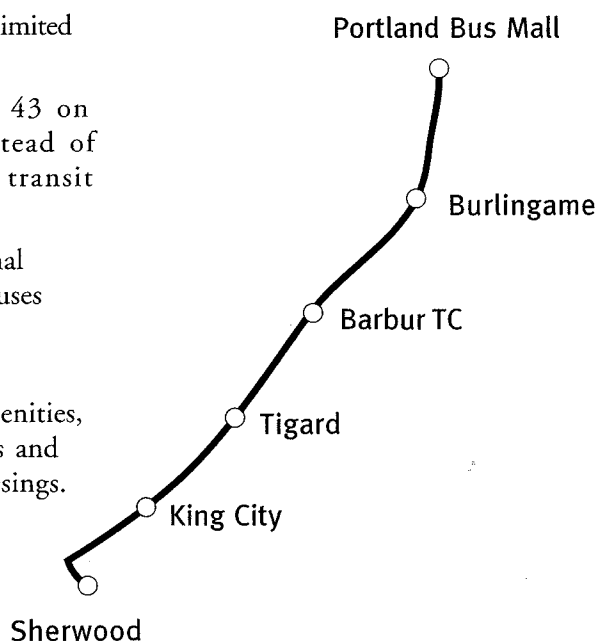
This is an exciting project with a quick timeline. Implementation of these improvements will be made September 2001.



As part of the Streamline improvements, a shelter will be added to this stop at SW Barbur and Hamilton and the retaining wall will be replaced.

This new line would have limited stops.

- Keeping Lines 5 and 43 on Capitol Highway instead of looping through the transit center.
- Implementing new signal technology that keep buses on schedule with signal pre-emption.
- Improving bus stop amenities, access to neighborhoods and pedestrian-friendly crossings.



SOUTH CORRIDOR STUDY

Following the 1998 voter defeat of the South/North light rail ballot measure, going back to basics to plan for transit options became the region's top priority. Interstate MAX will serve people along the northern portion of the corridor, but options for the south corridor are still under review.

The South Corridor Transportation Alternatives Study takes a new look at transit options for McLoughlin/Hwy 99E from downtown Portland to Oregon City and Hwy 224 from Milwaukie to Clackamas Town Center. The Regional Transportation Plan calls for transit improvements to move people and goods efficiently between and through population centers, create a balanced transportation system, and encourage development in the regional and town centers.

Metro has taken the lead to develop, evaluate, and prioritize high-capacity transit options to improve mobility in the South Corridor. Tri-Met, ODOT, the City of Portland, the City of Milwaukie, the City of Oregon City, Clackamas County and citizen-based working groups are all involved in the discussion.

The study had a large public involvement component with three citizen working groups, numerous public meetings, and an in-depth survey. To help get a feeling of residents needs, a survey was conducted in the Spring of 2000 and had 900 respondents (see sidebar).

The first phase of the study was completed in December 2000. Alternatives were compared to a no-build alternative and evaluated for ridership, cost, travel time,

environmental and social impacts. While light rail hadn't been included in the first phase, a light rail option was added to the Milwaukie to Portland segment for review at the urging of the inner neighborhoods and the City of Portland.

River Transit, Radial Commuter Rail, Circumferential Commuter Rail, and High Occupancy Toll Lanes were dropped from the analysis due to poor performance in the performance measures.

The final alternatives moved forward vary by segment of the Corridor as follows:

Milwaukie to Oregon City

No-Build

Bus Rapid Transit

Milwaukie to Clackamas Regional Center

No-Build

Bus Rapid Transit

High Occupancy Vehicle Lanes

Busway

Milwaukie to Portland

No-Build

Bus Rapid Transit

High Occupancy Vehicle Lanes

Busway

Light Rail (Portland to Milwaukie)

This spring, the Policy Group will decide which of these alternatives should be evaluated further in an Environmental Assessment (EA) or Environmental Impact Statement (EIS). During the EA/EIS study, a

preferred alternative will be selected. This alternative will likely be a priority transit project for Tri-Met and the region.

For more information, contact Elizabeth Mros at mrose@trimet.org or check out Metro's website at www.metro-region.org.

South Corridor Survey Results

- 55 percent of South Corridor residents felt that congestion in the corridor was tolerable
- 72 percent thought Commuter Rail would be helpful
- 63 percent thought light rail between Milwaukie and Portland would be helpful
- 63 percent thought that limited-stop buses with some intersection treatments between Milwaukie and Oregon City would be helpful

Public Comments

- 41 percent of comments called for adding light rail into the study
- All of the SE Portland Neighborhood Associations in the South Corridor wrote letters of support for adding light rail back into the study



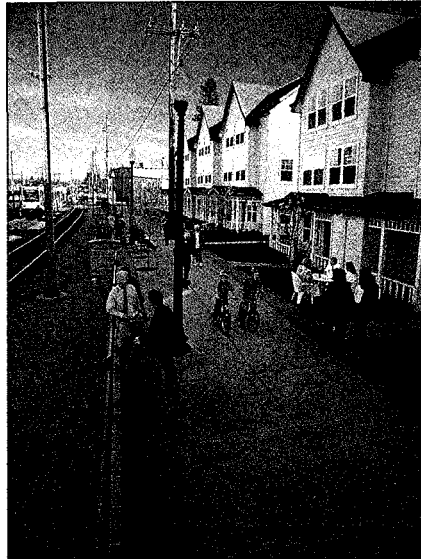
FUTURE CHALLENGES

While the residents of the region truly value the transit system that they have today, building a better system for a growing region will require a commitment by businesses, riders, non-riders, the region, and the state.

In order to reach the objectives that are laid out by the Regional Transportation Plan for transit, there must be an annual increase in transit service hours of at least 3.4 percent over the next twenty years. With current revenues, Tri-Met currently can support an annual increase of about 1.5 percent. The estimated gap in annual operating funding to implement the plan starts at \$32 million today and increases to \$186 million in 2020. The total transit capital shortfall for the 20 year plan is \$1.73 billion in 1998 dollars.

How can we fill the gap in funding to meet all these goals? We all have to do our part.

- Cities and counties can charge developers to pay for bus stop and rider amenities and provide transit priority at signalized intersections or along corridors.
- Metro can increase its commitment to fund transit capital



Gresham has planned its downtown around MAX.

- projects which allows Tri-Met's general fund to be used to put more service out on the road.
- The State of Oregon can commit to improve transit service by funding commuter rail, streamline bus services on state highways, and help purchase replacement buses for urban fleets.
- Businesses in the region can support transit by helping employees with annual or monthly passes or agreeing to increase their payroll taxes to improve choices for their employees.
- Tri-Met can continue to improve efficiencies and put those cost savings directly into service.
- Riders can continue to support the system and let their friends know why they take transit.

The Regional Transportation Plan identified sources to fund the transportation system and keep pace with inflation. Here are some of the ideas:

- ***Increasing the gas tax.***
- ***Replacing the gas tax with a tax on the number of miles you drive.***
- ***Adding a tri-county gas tax to the existing state and/or county gas tax.***
- ***Increasing vehicle registration.***
- ***Pricing roads during peak hours.***
- ***Creating a road maintenance utility fee similar to electricity or sewer.***
- ***Increasing the payroll tax.***
- ***Placing a voter approved property tax increase on the ballot.***
- ***Charging for parking for non-residential parking spaces.***

GATEWAY CONCEPT PLAN



As part of the Opportunity Gateway Concept Plan and the emerging Gateway Urban Renewal designation, Tri-Met is working with the Portland Development Commission on design concepts for converting the surface park and ride lot at the Gateway Transit Center into transit-oriented development. Over time, surface parking would be relocated to joint use parking structures at Gateway or at nearby stations. Pictured above is a concept plan for the intersection of NE 99th and Pacific, looking in a northwesterly direction towards the transit center. Mixed-use redevelopment would occur on all four corners of this intersection.



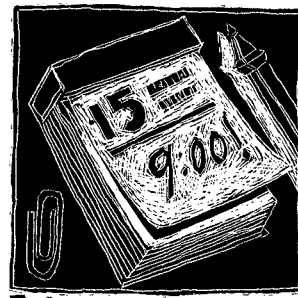
FARE Exchange

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Calendar



April

- 1 Daylight savings time begins
- 4 Board meeting
- 23 Summer sign-up begins
- 25 Board meeting

May

- 5 Employee Banquet
- 5 Paratransit Roadeo
- 19 Bus & Maintenance Roadeo
- 28 Memorial Day
(Sunday service)

June

- 3 Summer sign-up effective

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FARE Exchange

More riders hop aboard McLoughlin bus

Tri-Met hopes to extend that success to other South Corridor routes by making similar changes to them

By BILL STEWART
THE OREGONIAN

As residents and planners seek a transit-commute solution in Clackamas County, Tri-Met has boosted ridership on a key bus line in that "South Corridor."

A 20 percent ridership jump, primarily at middays and weekends, on No. 33/McLoughlin comes after more frequent buses, a streamlined and faster route, and more amenities.

As a result, Tri-Met is looking at similar changes on a second corridor, Southwest Barbur Boulevard.

In the South Corridor study, options range from doing nothing to a busway, which is a dedicated transit lane. Other options include a car pool lane, a toll/car pool lane, reversible lanes, a bus-priority lane, a commuter rail link to Beaverton and even a river ferry system.

A decision is expected sometime in 2002.

Commuting in the South Corridor has become a critical problem since voters rejected a southern light-rail route, so finding an alternate solution has top priority.

When Fred Hansen took the helm of Tri-Met several years ago, he wanted to experiment, and the key was what he calls "bus corridors." Three corridors were budgeted — South, Barbur and Division — but when the money didn't show, he decided to start with one, the South Corridor.

There was nothing magical about his solution.

Tri-Met added enough buses during the daytime and evening to achieve a 15-minute frequency. Before the change, off-peak service brought a bus every half-hour weekdays and during the day on Saturdays. Weekend evenings and Sundays changed from hourly to every 30 minutes.

Tri-Met also added 20 new shelters; built waiting pads, ramps and sidewalk extensions at 36 sites; and added lighting at 18 bus stops.

Then 24 stops were respaced, primarily for accessibility reasons,

said Mary Fetsch, a Tri-Met spokeswoman. Some of the relocated stops required passengers to maneuver their walkers, wheelchairs and carts through mud and bark dust, so the stops were moved to sidewalks.

Stops deleted and added

Twelve stops were eliminated while nine new ones were added. Route changes in Gladstone are credited with shaving four to five minutes off the trip, even during rush hours.

Weekday ridership increased from 3,960 in spring 1999 to 4,590 in spring 2000. That's an increase of 16 percent. Saturday ridership followed that pattern with a 28 percent increase, while Sunday bus use went up 63 percent when frequency increased from hourly to every 15 minutes.

Six months after the changes, Tri-Met surveyed 405 households within five blocks of the No. 33 route between Southeast Holgate Boulevard and Monroe Street in Oregon City. A separate survey quizzed passengers on the buses.

In both surveys, Tri-Met was told that the keys to increased rid-

ership included more frequent service, faster travel, more shelters, more schedule information in shelters and improved lighting. The extra service and amenities had been noticed by 40 percent of those contacted, and of those people, 37 percent said they had increased use of transit as a result.

While tweaking of the McLoughlin bus began to pay off, Hansen ordered his Barbur Boulevard corridor idea dusted off, with new service starting Sept. 2, 2001. Public meetings are being held now through March 2001.

Goals on Barbur Boulevard include:

- ♦ Faster travel time via a more direct route, and more buses more often.
- ♦ Fewer delays.
- ♦ A simpler route.

Streamlining Barbur route

At present, No. 12/Barbur travels as far as 16 miles between Sherwood and downtown in slightly less than an hour. But some buses start at Sherwood, some at King City and some at the Tigard Transit Center. An estimated 26,000 peo-

ple live within a quarter-mile of the line, and there are 30,000 jobs in that corridor.

To streamline the route, three detours off Barbur Boulevard might be eliminated.

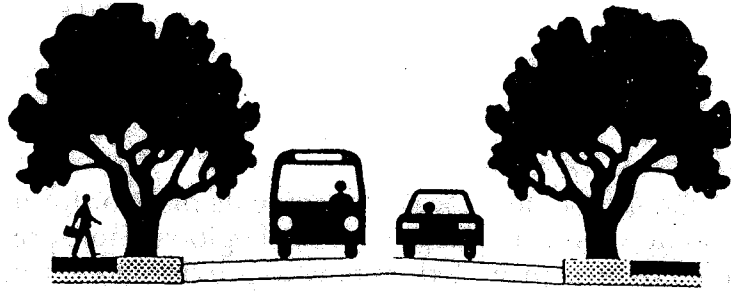
Another change might be the consolidation of some of the 170 bus stops, especially when stops might be at opposite sides of an intersection.

"For Barbur, we're focusing on more service, fewer delays and simpler routing," Fetsch said. As with McLoughlin, Barbur will get more shelters, lighting, paved passenger pads and safety improvements.

A frequency of a bus every 15 minutes is being proposed until 7 p.m., with 30-minute evening and night service, seven days a week.

Other options include creating a local bus line to serve King City and Sherwood from Tigard, or a new commuter express with limited stops from Sherwood to downtown or the Lloyd District.

♦
You can reach Bill Stewart at 503-294-7670 or by e-mail at billstewart@news.oregonian.com.



GREEN STREETS IN THE CITY

A Green Streets Summit sponsored by Metro's Planning Department

Tuesday, May 1, 2001

8 A.M. to Noon at Metro

Metro's Green Streets Summit will examine the growing conflict between good transportation design, planned growth in rural areas and the need to protect streams and wildlife corridors from these impacts.

Keynote speaker:

Dr. Patrick M. Condon, University of British Columbia

Dr. Condon is an expert on urban storm water management who specializes in sustainable development. He is the UBC James Taylor Chair of Landscape and Liveable Environments. Dr. Condon is the driving force behind the Headwaters Sustainable Development Demonstration Project in Surrey, BC. It is intended to be the region's first sustainable neighborhood, where natural systems are preserved and enhanced.

At the summit, Dr. Condon will discuss emerging changes in transportation and storm water design that can maintain or restore a healthy watershed in an urban environment. He will show how new transportation systems, called "greenfrastructure," can manage storm water runoff to mimic natural functions of a watershed, protecting wildlife habitat while providing an attractive streetscape for people.

Workshops

Green Streets Handbook Debut

With the federal listing of salmon and steelhead and proposed listing of cutthroat trout as threatened species, new attention is focused on urban fish habitat, stream passage and water quality. The Green Streets program will provide guidelines to ensure fish-friendly design solutions. A draft of the Green Streets Handbook, now under production, will be unveiled and discussed.

Street Culvert Design Solutions

Fish-friendly designs for culverts are necessary to protect fish from road impacts. More than 150 of the region's culverts were found to need work to allow fish passage. Federal funding will be provided to fix these fish access problems. This session will address how to replace or retrofit existing culverts to promote free-flowing streams. (over)

Street Connection Changes

There have been changes to how local governments plan for future streets. New simplified standards were adopted in the Regional Transportation Plan. However, no direction was provided on how to provide street connections across stream corridors. Initial results of a study evaluating street connectivity across stream corridors will be shared.

Logistics

Registration

There is no fee for the summit but space is limited and reservations are required. To register, call Sherrie Blackledge, (503) 797-1724 or e-mail blackledges@metro.dst.or.us

Location

Metro Regional Center
Council Chamber
600 NE Grand Avenue
Portland, OR 97232

Transit and parking

Metro is two blocks south of the Oregon Convention Center MAX station. Tri-Met bus #6 stops at the door. Parking is available at the first parking entrance on Irving Street, just off Grand Avenue. Sign in with the parking attendant to get a windshield parking pass for the summit.

Questions about the summit:

Call Ted Leybold, (503) 797-1759
or e-mail leyboldt@metro.dst.or.us



METRO

Green Streets:

Environmental Designs for Transportation

Introduction

The proposed Green Streets project has a number of elements that will address this growing conflict between good transportation design, planned urbanization in urban reserves and the need to protect streams and wildlife corridors from urban impacts. Key elements of the project include:

- Expanding the regional database to include an inventory of culverts that channel stormwater from streets to the stream system;
- Proposing new regional street connectivity provisions that address the tradeoffs between stream protection and an efficient, connected street system;
- Creating a best practices guidebook that establishes acceptable design solutions for conflicts between major street or connectivity needs and stream protection; and
- Testing the proposed designs as part of the Pleasant Valley-Damascus urban reserve plan.

Summary of Project Tasks

Task 1 – Complete an Inventory of Needed Transportation Retrofits

Complete an inventory of needed retrofits to regional transportation facilities that limit or prevent fish passage for endangered salmon and steelhead species.

Task 2 - Develop Green Streets Handbook

Develop a Green Streets handbook that provides guidelines for the development of transportation projects in the Metro region, establishing a range of "best practice" solutions for transportation improvements that affect streams and wetlands.

Task 3 - Develop Updated Standards for Connectivity

Develop street connectivity guidelines that balance the connectivity objectives of Title 6 of the UGMFP with stream protection policies contained in Title 3 of the UGMFP and Metro's Goal 5 plan for the region.

Task 4 - Test Proposed Designs and Connectivity Designs

Evaluate draft Street Connectivity guidelines for street crossings in wetlands and stream corridors to provide empirical support for proposed measures.

Task 5 - Develop Green Streets Cost Analysis

Provide a comparative costs analysis that evaluates the relative differences in construction and maintenance costs for Green Streets designs and current practices.

Task 6 - Green Streets Summit

Provide an opportunity for agencies, transportation and wildlife professionals, interest groups and interested parties to review and comment on the draft Green Streets handbook.

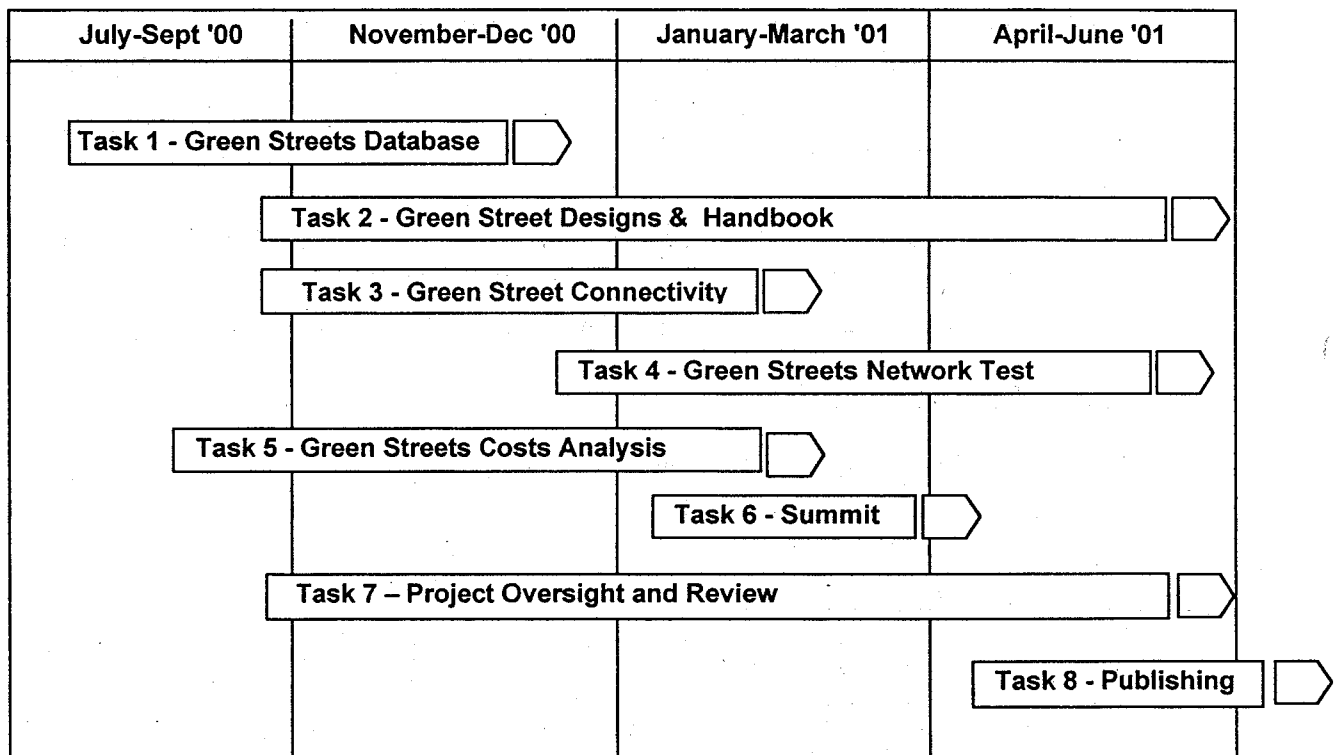
Task 7 - Green Streets Project Oversight and Agency Review

Conduct an oversight process that involves public agencies and a technical advisory committee to review and comment on Contractor and Metro staff products.

Task 8 - Green Streets Handbook Publication

Publish the Green Streets handbook for distribution to public agencies and the general public.

Figure 1
Green Streets Schedule



(SAMPLE) Green Streets

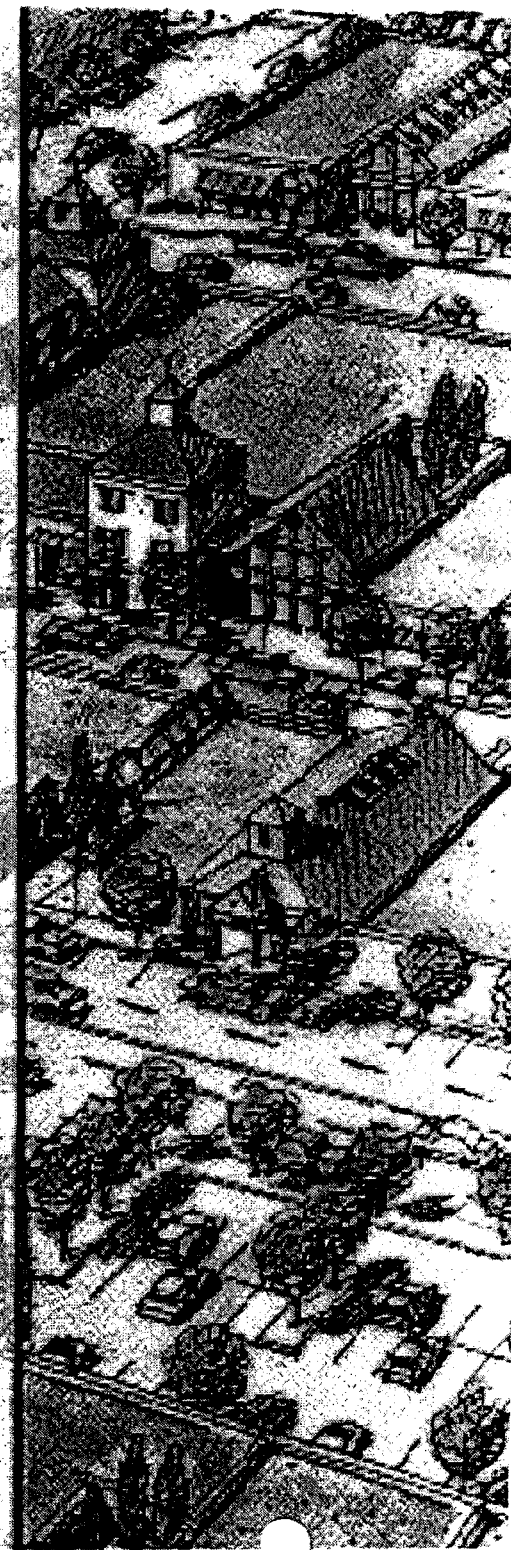
*Environmental
Designs for
Transportation*

March 15, 2001 Draft



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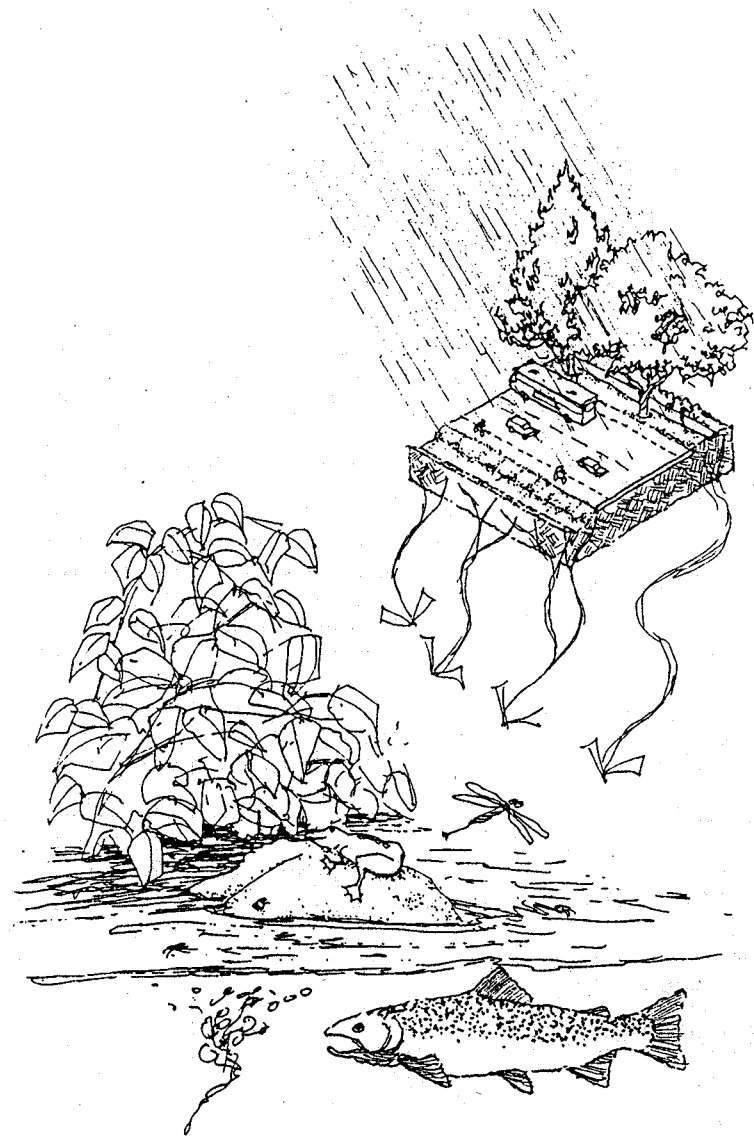
Environmental
Department



B. What is a "Green Street"

A Green Street:

- ❖ Is designed to incorporate a system of stormwater treatment within its right-of-way;
- ❖ Is one component of a larger, watershed approach to improving the Region's water quality;
- ❖ Makes visible a system of "green infrastructure";
- ❖ incorporates the stormwater system into the aesthetics of the community;
- ❖ maximizes the use of street tree coverage for stormwater and climatic reasons;
- ❖ at points where it crosses a stream or other sensitive area, a Green Street is located and designed to ensure the least impact on its surroundings;
- ❖ requires a more broad-based alliance for its planning, funding, maintenance, and monitoring.



Earth as a Sponge – Soil Types

Infiltration rates of soils vary widely and affected by subsurface permeability as well as soil intake rates. Soils are classified into four Hydrologic Soil Groups (A, B, C, and D, refer to soils section) according to their minimum infiltration rate, which is obtained from bare soils after prolonged wetting. Most urban areas are only partially covered by impervious surfaces; however the soil remains an important factor in runoff estimates. Urbanization has a greater effect on runoff in watersheds with soils having high infiltration rates (i.e. sands and gravels) than in watershed predominantly of silt and clays, which generally have low infiltration rates.

Table Hydrologic Soils Group (HSG)²

Soil Type	Min. Infiltration Rate (inches/hour)
A: Low runoff potential; high infiltration rates and high rate of water transmission; consisting chiefly of deep, well-drained sands and gravels	0.30 – 0.45
B: Moderate infiltration rates and moderate rate of water transmission; consisting of moderately well-drained sandy loam with moderately fine to coarse textures.	0.15 – 0.30
C: Slow infiltration rates and slow rate of water transmission; consisting chiefly of silty-loam with a layer impeding water transmission or soils with moderately fine to fine texture.	0.05 – 0.15
D: High runoff potential; slow rate of infiltration; consisting clay soils, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material.	0 – 0.05

Role of Biofiltration - What exactly is a "Swale"?

Biofiltration is a term adopted for processes in which stormwater receives treatment through physical, chemical or biological interaction with vegetation and the soil surface. Pollutant removal occurs by either settling, infiltration, plant uptake and/or ion exchange with soil particles. The processes include: 1) sheet flow over a broad, vegetated "filter strip"; 2) small, created wetlands or infiltration basins or 3) flow at some depth through a vegetated channel, or "swale"

A **swale** is a vegetated channel that looks similar to, but shallower and wider than, a ditch. They are designed and maintained to transport shallow depths of runoff slowly over vegetation. The slow movement of runoff allows sediments to settle out and particulate to be filtered and degraded through biological activity (microsomes). Research in the early 1980s along Washington State highways and in Florida demonstrated the ability of biofiltration swales to remove solids and metals effectively from stormwater runoff. Additional case study examples are documented in Chapter IV and a detailed illustration is included in Chapter VI.

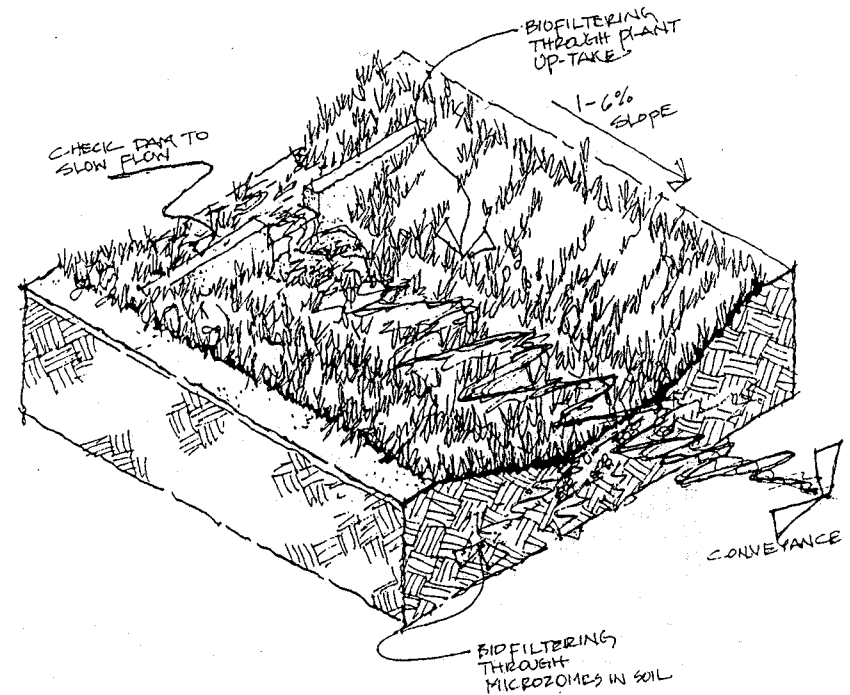


FIGURE _____ BIOFILTRATION SWALE

B. Characteristics of the Metro Area

Rainfall Characteristics

In the maritime lowlands of the Pacific Northwest, where the bulk of precipitation falls as rain between October and March when deciduous trees are leafless the above-ground effects on runoff amounts are relatively small. However, these effects are relatively substantial during the summer months when rain events are typically smaller and less frequent. These smaller, infrequent rain events yield more highly polluted runoff, since they flush the pollutants and sediments which have accumulated on surfaces between rainfalls. Further, dissolved pollutants are more concentrated in the smaller quantities of runoff and in the low summer flows of receiving watercourses. Therefore, the above-ground effects of urban trees in the Pacific Northwest are likely to be more significant in terms of stormwater runoff *quality* than runoff *quantity*.

The characteristic precipitation patterns of the Pacific Northwest make surface effects particularly important. Major storm events here tend to be longer but of a lesser intensity than in other temperate regions of North America which experience short but very intense thunderstorms. Gradual precipitation accumulation means that a greater proportion of stormwater is able to infiltrate or evaporate during long storms; infiltration rates are better able to 'keep up with' precipitation rates under these conditions. This is not possible if precipitation is so intense that it runs off a site before it has a chance to infiltrate or evaporate. However, this net reduction of runoff can

only occur if stormwater is retained on a site's surface until conditions favor infiltration or evaporation.

Figure ____ Precipitation Totals for the Metro Region

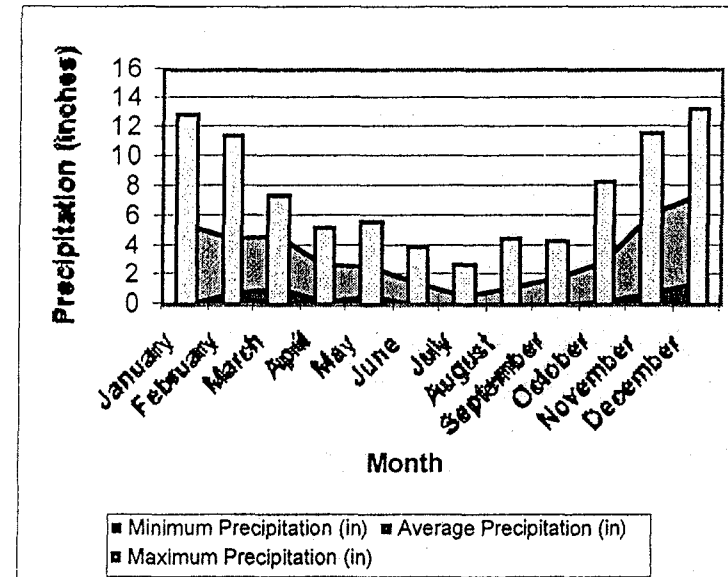


Table 1 Retrofit vs New Construction

Issue	Retrofit	New Construction
Planning Implications	<p>Installation of appropriate designs are restricted to existing ROW; easements onto private property need to be negotiated.</p> <p>Existing street system may not correspond to site conditions, thereby restricting the range of designs available.</p>	<p>Creation of new road system that incorporates designs can lay framework for new development.</p> <p>A "system" of treatment facilities can be designed from the outset to adhere to particular site conditions and existing natural drainage systems (streams).</p>
ROW Requirements	<p>ROW restricted by adjacent development.</p> <p>Must ensure that installation of designs does not come at expense of pedestrian and bicycle facilities.</p>	<p>Dedication of new ROW can incorporate designs.</p> <p>Pedestrian and bicycle accommodations can be designed to be compatible with designs.</p>
Edge of Roadway Condition	<p>Substantial modification to edge of roadway may be met with public resistance.</p> <p>See costs.</p>	<p>Edge treatments can be designed in accordance with chosen stormwater design.</p>
Street Trees	<p>Proposed system must adapt itself to existing street trees due to expected public resistance to tree removal.</p> <p>Provides opportunity for increased street planting.</p>	<p>Tree placement and species can be fully incorporated into the system.</p>
Utilities	<p>Installation of designs would generally have to "work around" existing utilities due to prohibitive expense in moving utilities.</p>	<p>Utilities can be consolidated and localized to eliminate conflict with designs.</p>
Overflow Contingencies	<p>Existing storm drain system can serve as overflow carrier</p>	<p>Overflow regime must be considered.</p>
Costs	<p>Structural BMP retrofit of existing development is expensive requiring retrofit to existing storm drain facilities, to existing municipal open space (i.e. detention ponds) or to other developed sites (i.e. underground storage in downtown areas). Retrofits are typically funded by municipalities.</p>	<p>With exception of major streets, structural designs for new development are typically funded by private land developer.</p>
Stream Crossings	<p>Replace culverts with clear-span bridges, suspended where necessary to achieve the aesthetically-pleasing span/depth ration. The abutments should be set back from the river bank and outside the active floodplain* so that the edge remains undisturbed and flood risks are not increased. The extra costs of the structure can be offset by working 'in the dry' (not in the river), and therefore unrestricted by the season.</p>	<p>Opportunity for clear-span bridges set back from the river bank and outside the active floodplain*, preferably with an arch to increase span/depth ratio and resulting high aesthetic appeal. The extra costs of the structure can be offset by working 'in the dry' (not in the river), and therefore unrestricted by the season.</p> <p>* This criterion to be expanded to apply to varying types of crossings and valley topography.</p>

Table ____: Green Street BMPs and their Primary Functions (after Coffman *et al.*, 1998)

Green Streets BMP	Runoff Reduction	Detention	Retention	Conveyance	Water Quality
Reduced Imperviousness	X				
Vegetative Filter Strips				X	
Swales		X		X	X
Swale with Check Dam		X		X	X
Infiltration Swale		X	X	X	X
Rainwater Garden		X	X		X
Infiltration Trench			X		X
Elimination Curb and Gutter	X				X
Vegetative Buffers	X				X

Table ____ Design Solutions Pollutant Removal Effectiveness (after City of Portland , 1995)

Pollutant	Vegetated Swale/Filter Strip	Infiltration Trench
Total Suspended Solids (TSS)	High	High
Chemical Oxygen Demand	Medium	Med/High
Oil and Grease	High	High
Nutrients	Low	High
Metals	Medium	High
Bacteria	N/A	High

1. Street Trees

Presented in this section will be work currently underway in a parallel study. The discussion will center on the numerous benefits that street trees have, and establish a new list of trees that perform stormwater functions (interception, pollutant removal, etc).

A broader focus of this work is to broaden the idea of a "Green Streets" beyond purely self-mitigating stormwater functions, but creating an approach that creates multi-functional streets that achieve a balance that is currently lacking in street design.

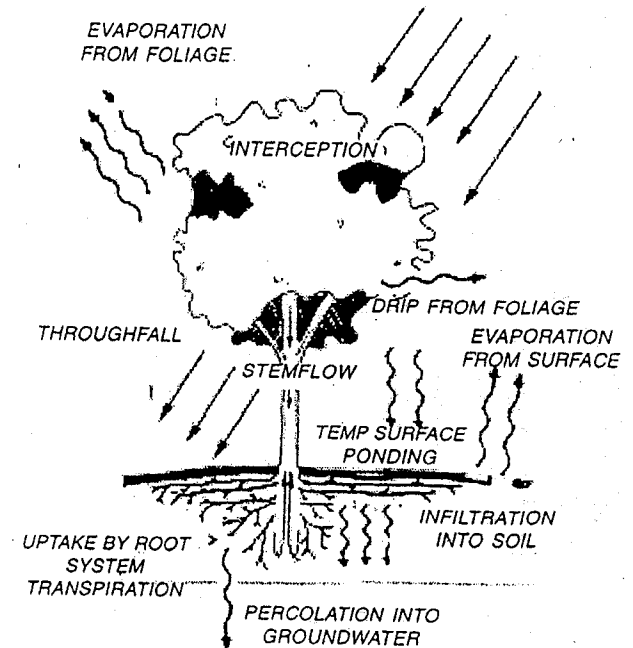


FIGURE — EFFECTS OF TREES ON
RUNOFF (U.B.C.)

2. Permeable Pavement

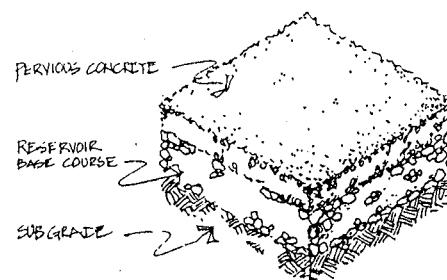
Permeable pavements refer to any load-bearing surface that has capability of infiltrating runoff into the underlying reservoir base coarse (with at least 40% void space) and soil. If properly installed and maintained, permeable paving is an effective method of reducing impervious surface without reducing intensity of use.

- a) **Pervious concrete:** extremely permeable material (12"/hr) and extensively tested in Florida. Has the appearance of exposed aggregate concrete.
- b) **Porous asphalt:** comprised almost entirely of stone aggregate and asphalt binder with very little fine aggregate; has a "popcorn-like" appearance.
- c) **Unit pavers/bricks/stone:** durable and attractive surfaces that are permeable if spaced to expose a permeable joint and set on a permeable base.
- d) **Turf block:** example of an "open cell" unit paver; can be filled with vegetation or gravel; does not provide for a comfortable walking surface and is best suited for low-traffic surfaces.
- e) **Crushed aggregate:** long history of use; must be bounded by rigid edging; variety of aggregates available.
- f) **Cobbles:** best suited for very low traffic areas and provide a low maintenance alternative to landscaping.

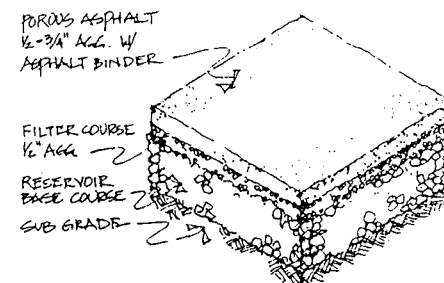
AASHTO Considerations: To be determined.

Maintenance Issues: To be determined

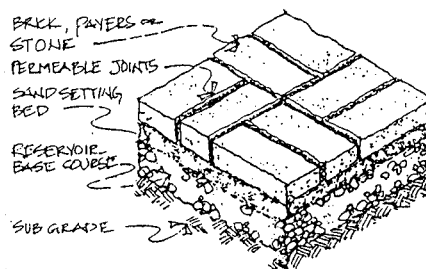
Retrofit or New Construction: Both



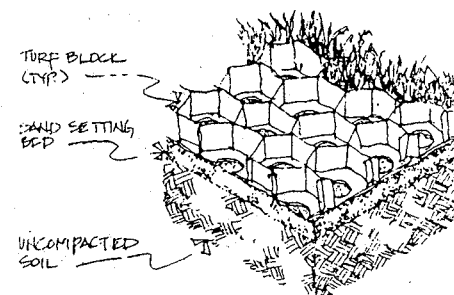
a) Pervious concrete.



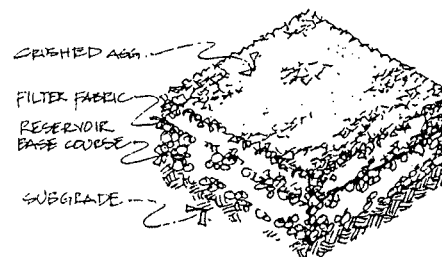
b) Porous asphalt.



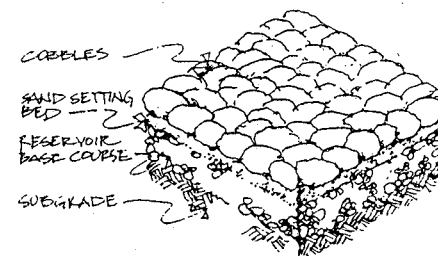
c) Unit pavers/bricks/stone



d) Turf block.



e) Crushed aggregate



f) Cobbles.

3. Bio-Filtering Swales

Bio-filtering swales are a proven method of bio-remediation for both the protection the-quality of groundwater and, if the outfall is into a stream, the quality of the run-off. Effectiveness of bio-swales are limited by length and slope. The minimum length for an effective bioswale is considered to be approximately 200 feet. In terms of slope, there needs to be enough to allow flow (a minimum of 1%), but not too steep to allow maximum contact between water and vegetation, and to prevent scouring. Therefore for slopes greater than 2% up to a 6% maximum there will be the need for check dams that slow the water flow to allow pooling and infiltration. The accompanying illustration shows a standard trapezoidal swale with a tree mound serving as a check dam and as an interesting landscape element. Check dams can also be more conventional in design and appearance.

AASHTO Concerns:

To be determined.

Maintenance Issues:

Vegetation needs to be mowed to promote upright growth.

Retrofit or New Development

Appropriate for both, although existing underground utility lines may preclude installation.

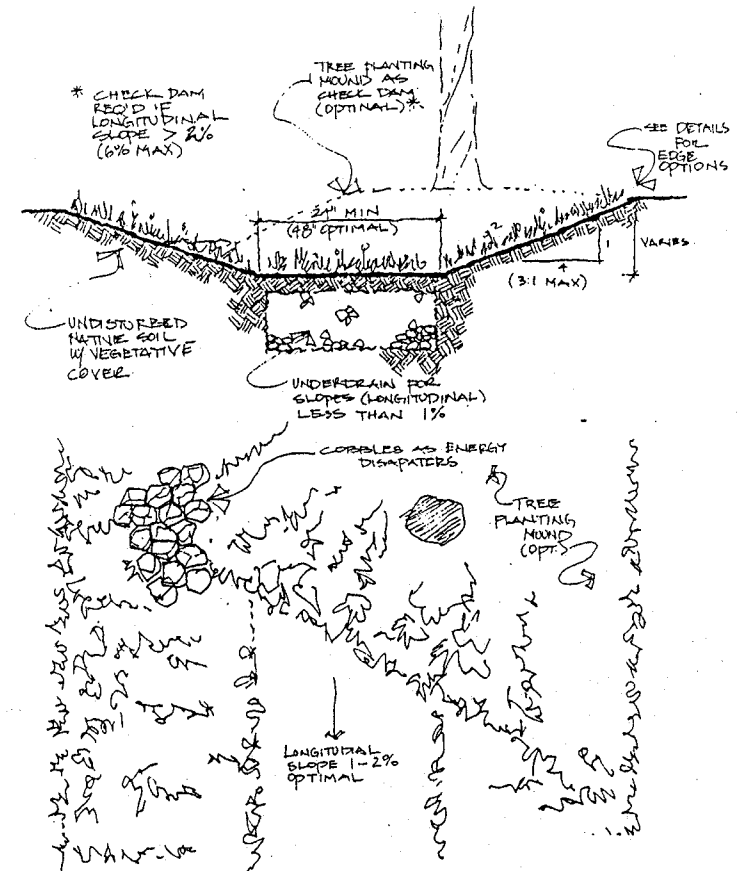


FIGURE — BIO-SWALE

4. Infiltration/Conveyance Trenches

Infiltration/conveyance trenches are be simple trenches back-filled with coarse aggregate having a dual purpose. They perform the function of "ubiquitous infiltration" by collecting runoff, slowing the discharge rate and conveying the water to a bio-radiation facility such as a swale or a basin. Alternatively this infiltration strip could be vegetated itself, thus performing some degree of bio-remediation. To mitigate the problem of sedimentation "clogging" these strips, any number of solutions presented in Part 7 of these sections is possible.

Planting trees within these strips may be problematic given the root's tendency to get into pipes (where oxygen is plentiful). A possible solution to mitigate this problem is to alternate the use of perforated and solid pipes depending on proximately to the root system. Also the pipes may be wrapped in filter fabric to preclude root invasion.

Depending on the level of land intensity or aesthetics, surface material can be vegetation, gravel, cobble or pavers.

AASHTO Concerns:

To be determined.

Maintenance Issues:

The perorated pipe may need a yearly system flush if sited in an area with a low gradient and if the pipe is not wrapped with filter fabric..

Retrofit or New Development

Appropriate for both, although existing underground utility lines may preclude installation.

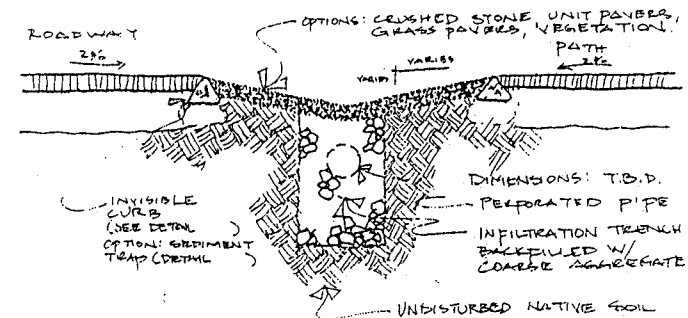


FIGURE _____ INFILTRATION TRENCH

6. Street Tree Pits

The design intention here is to create an infiltration device appropriate for the most urban of the street types. Also, occupying the least amount of the ROW to allow for on-street parking, bike movement, transit stops, pedestrian activity, outdoor café seating, outdoor displays, etc.). If space at a typical distance (<30') the collection area for each pit would not be excessive. Therefore the runoff could be easily accommodated in the tree pit allowing for bio-remediation to occur.

AASHTO Concerns:

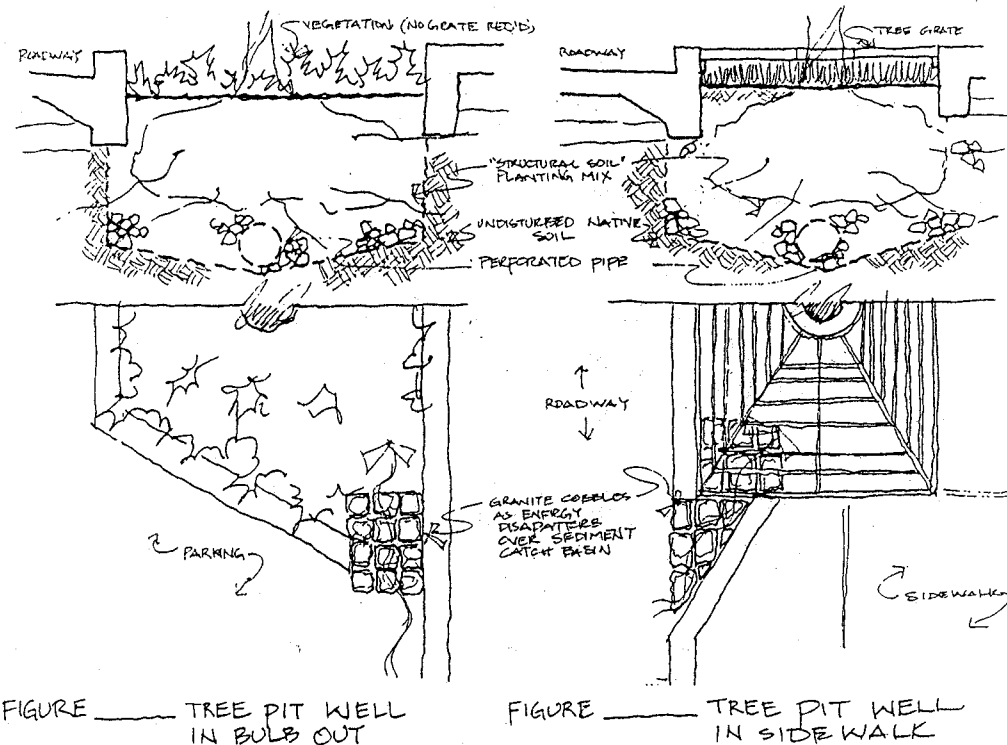
If on-street parking is not presnet then the trees would have to be planted a minimum of two feet from edge of roadway ("clear zone"); and a "length of need" guideline may require a curb around the tree.

Maintenance Issues:

There may be an issue with the perforated collection pipe running beneath the tree. This may be resolved by wrapping the pipe in filter fabric.

Retrofit or New Development

Possible for each; existing mature trees may preclude installation.



7. Edge Conditions/Curbs

Delineating the edge of the roadway can be accomplished with a variety of solutions. Choice depends upon surrounding land use intensity, and type and speed of expected traffic.

Figure ____ Community Street Curb Option Range

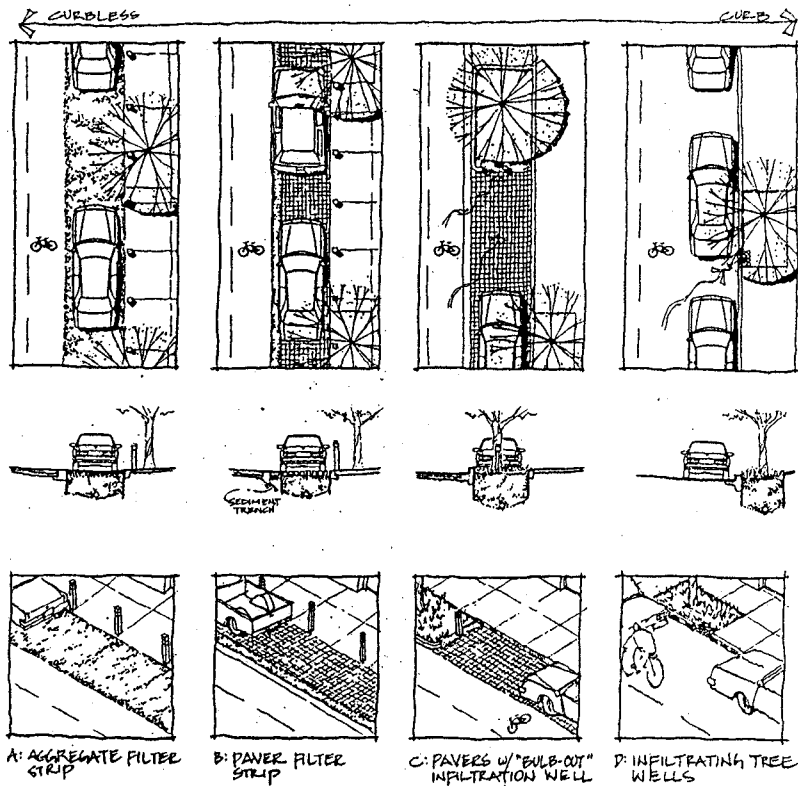
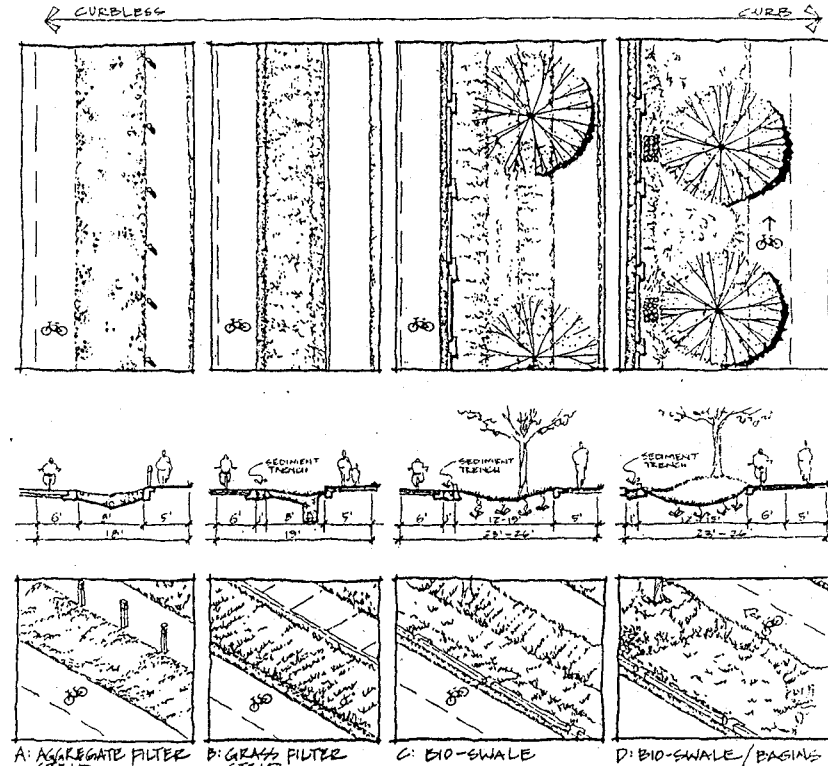


Figure ____ Regional Road Curb Option Range

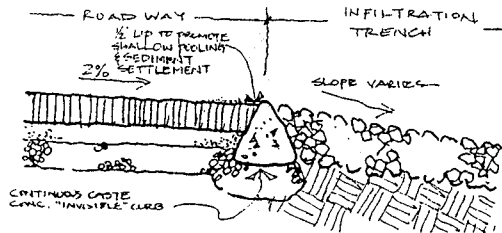


Represented below are a range of design options for two types of streets: a local, community street (with on-street parking) and a more regional road. Each illustrates a range between curbless to essentially full curb. The list is not exhaustive and additional design options are represented on the following page.

7. Edge Conditions/Curbs (continued)

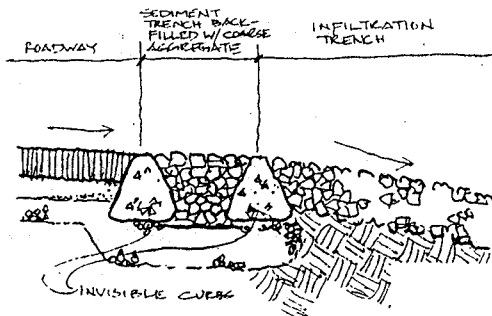
Invisible Curb with "Lip"

The invisible curb will retain the road surface but allow runoff to flow into either an infiltration trench or swale. A shallow half inch lip will promote shallow ponding and sediment settlement that can later be removed by street cleaning equipment.



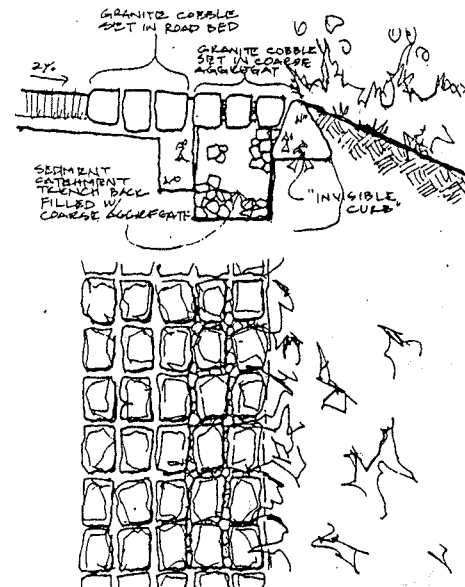
Double Invisible Curb with Sediment Trench

Where street cleaning is not part of regular maintenance, a sediment trench back-filled with coarse aggregate can catch sediment over a long period of time keeping it out of the filtration strip or swale.



Rumble Strip with Sediment Trench (opt.)

A variation of the curbless option is to create a "rumble strip" along the edge of the roadway as a tactile warning to drivers veering too close to the edge of roadway. Bicycle safety needs to be considered.



AASHTO concerns: "length of need" and "clear zone issues" to be discussed

Maintenance issues: to be discussed.

7. Edge Conditions/Curbs (continued)

Pre-Fabricated Curb Inserts

Appropriate for retrofitting, these inserts (as of yet not known if manufactured) could be placed within a curb and still maintain the integrity of the curb. The shallow lip would allow sediment to settle out and be picked up by traditional street cleaning methods. If the inlets are close enough together, energy-dissipating cobbles are not necessary in the trench to avoid erosion.

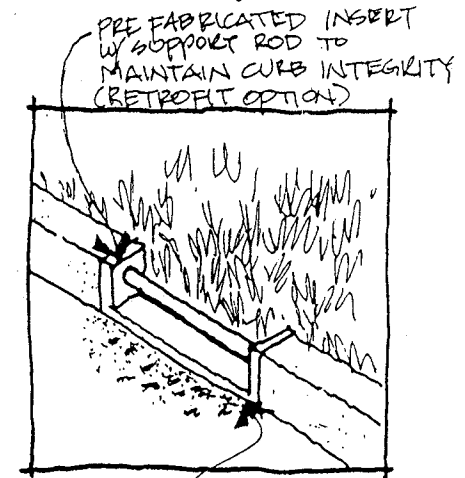


FIGURE — PRE-FAB CURB INSERT

1/2' LIP TO PROMOTE SHALLOW POOLING & SEDIMENT SETTLEMENT

Pre-Cast Perforated Curbs

For new development, curbs can be installed that have perforations already cut into them allowing both easy flow and the presence of a curb. Once more, a simple lip would allow the settling out of sediment on the roadway for future clean-up.

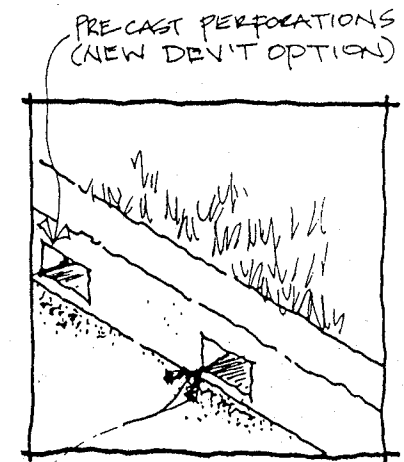
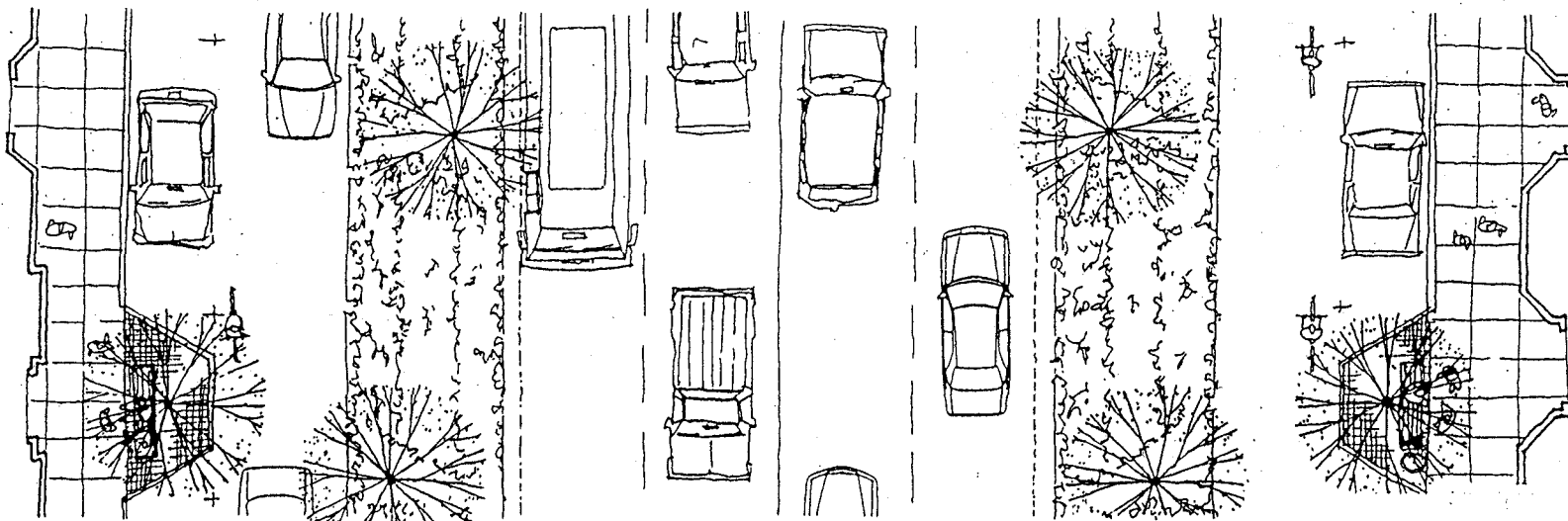
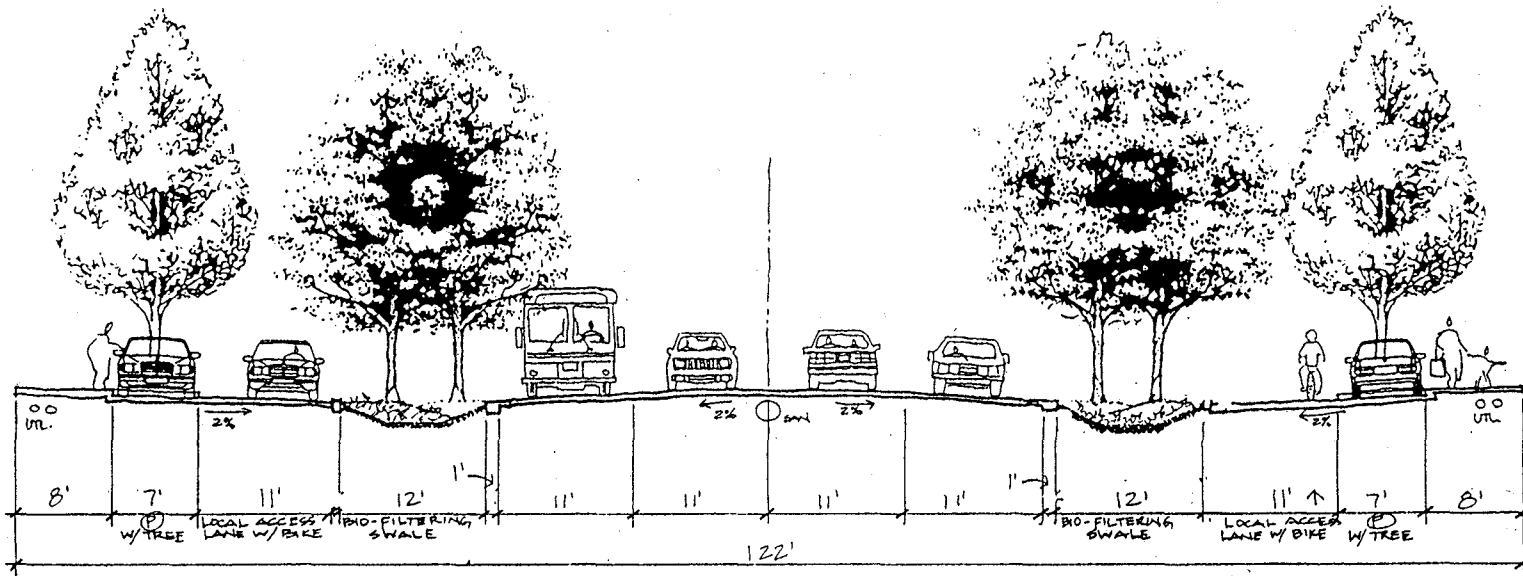


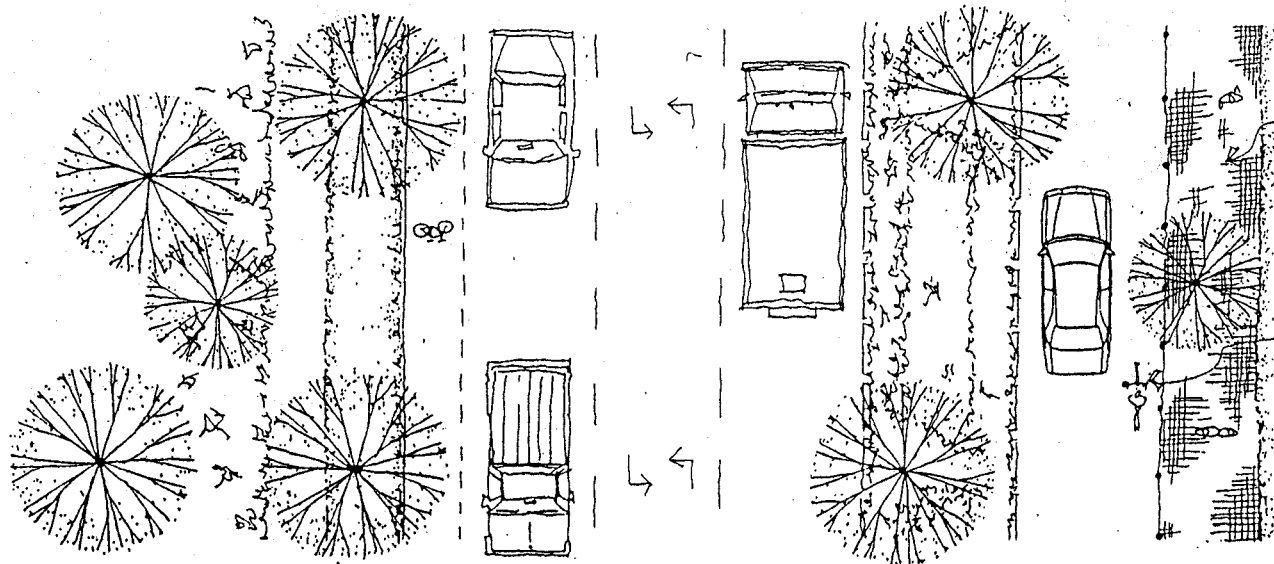
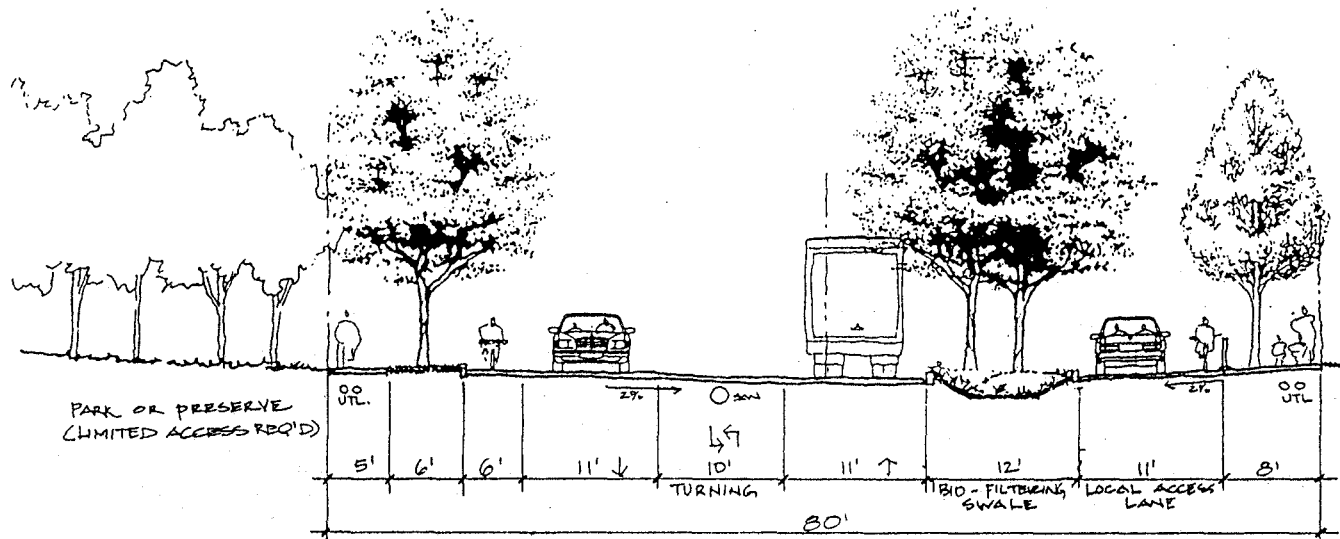
FIGURE — PRE-CAST PERFORATED CURB

1/2' LIP TO PROMOTE SHALLOW POOLING & SEDIMENT SETTLEMENT

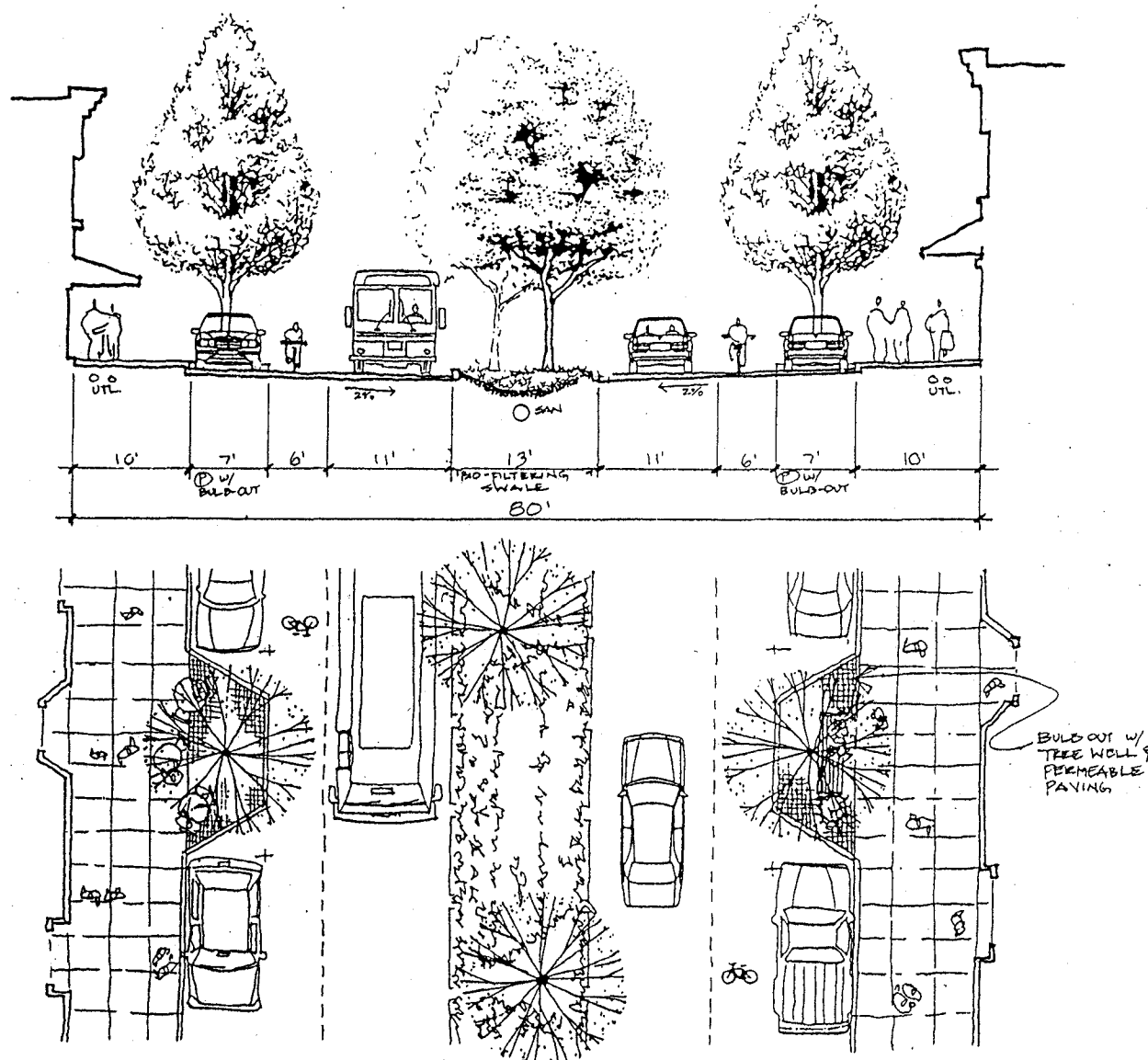
1. Community Boulevard – 122' ROW



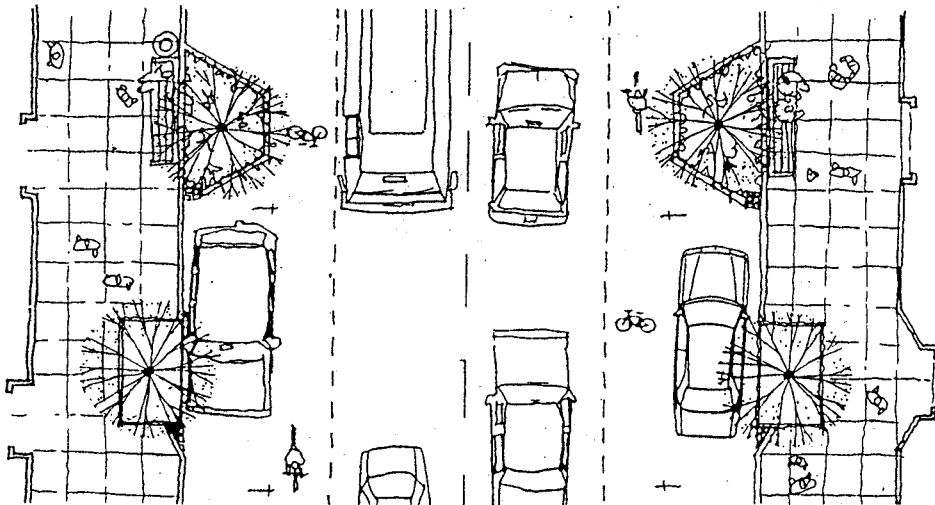
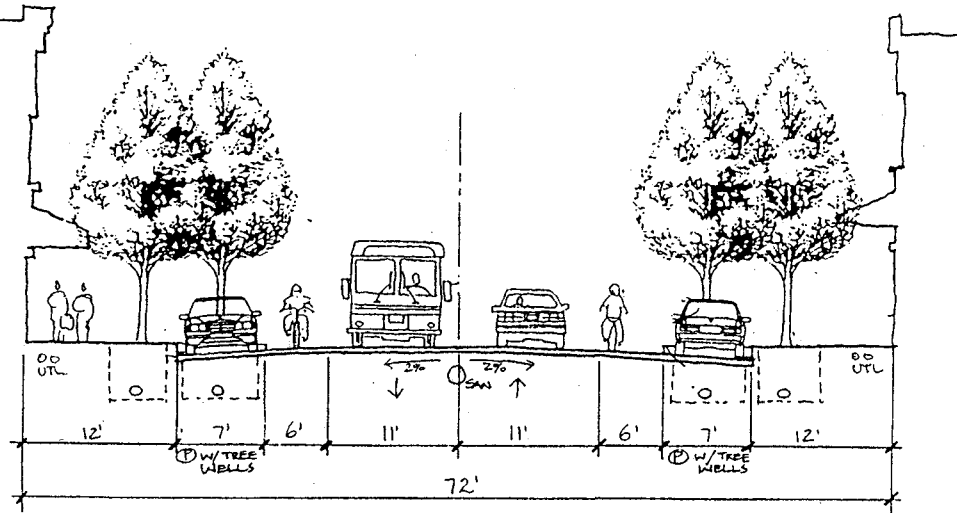
3. Community Street with Local Access Road – 80' ROW



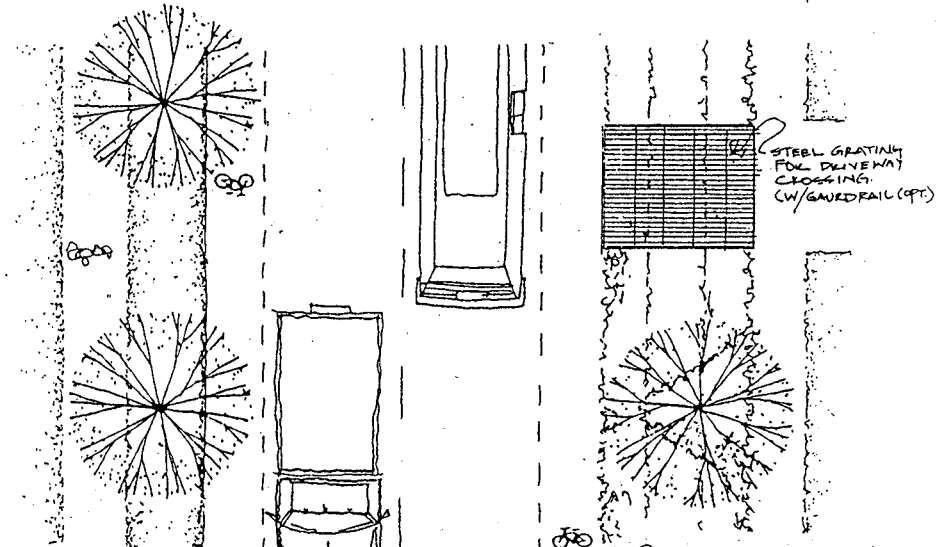
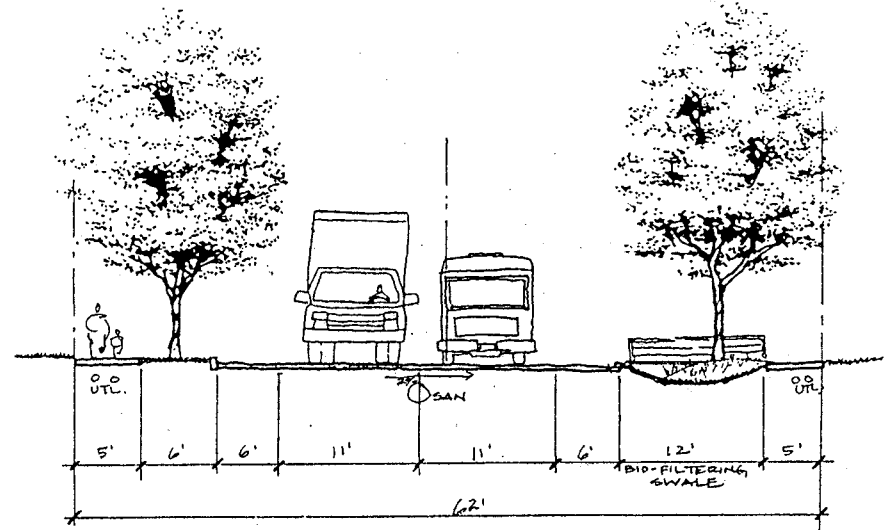
4. Commercial Street with Central Median



5. Commercial Street – 72' ROW



6. Rural Road – 62' ROW



Design Solution Treatment at Intersections

The application of design solutions into the street right-of-way previously illustrated show the integration only along uninterrupted street segments (except for driveways).

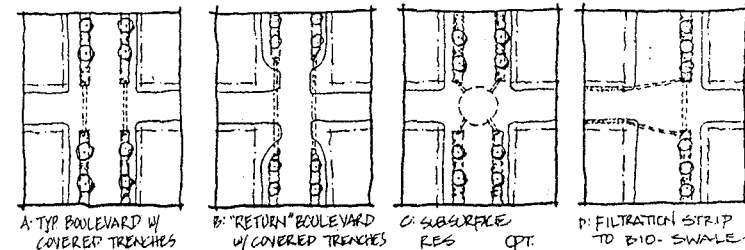
Naturally, in a well-connected street systems the frequency and number of intersections will impact the efficiency of a particular design solution. Care must therefore be taken in the design.

In case of new development, the design solution theoretically could initially inform the street framework meaning that the transportation requirements necessary can be designed in concert. The result could be a unique and efficient streetscape.

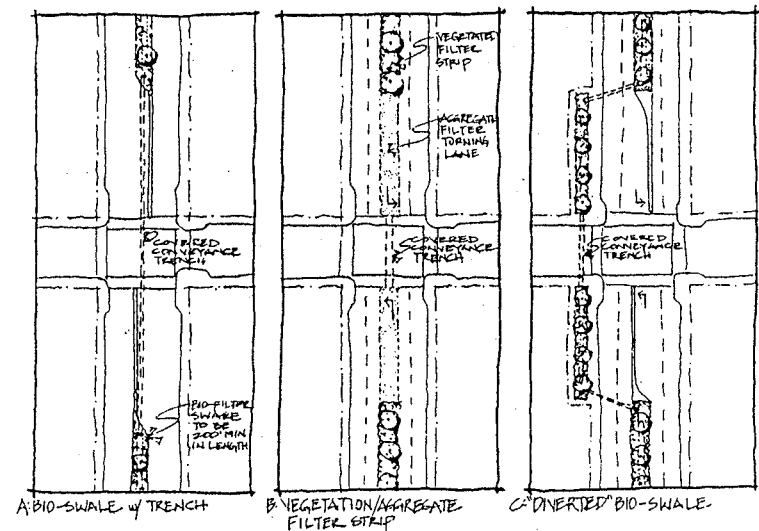
In cases of retrofit, where an intersection configuration has been established, it may be more difficult to integrate a particular design solution and sub-surface culverts may be the only option.

The adjacent illustrations are only preliminary ideas as to how to integrate the solutions into an intersection. Detailed site analysis such as traffic and pedestrian volume need to be considered.

BOULEVARD TREATMENT:

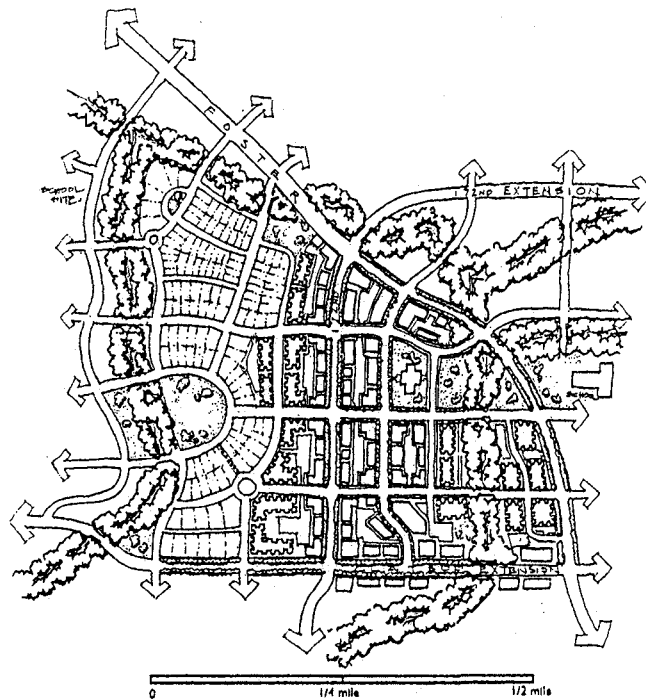


CENTRAL MEDIAN TREATMENT:

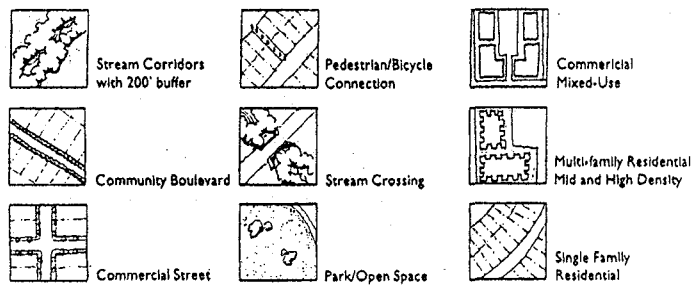


8 – 12 Connections per Mile

12 – 16 Connections per Mile



Illustrative to be inserted



Stream Crossing Design Selection Goal and Objectives

The goal for locating stream crossing should be to protect the natural functions of the stream corridor in order to reduce the impacts of development on water quality and stream habitats. The following objectives have been identified for this project.

Objectives

- ❖ Reduce impacts on the stream corridor by orienting crossings as perpendicular as possible to streams and/or their floodplains to minimize the obstruction of flood flow, sediment transport and floating debris.
- ❖ Make the R.O.W. as narrow as possible by placing utilities under pavement.
- ❖ Minimize the impact of the crossing on stream geomorphology by accommodating high and low flows and maintaining natural channel slopes in both culvert and bridge design.

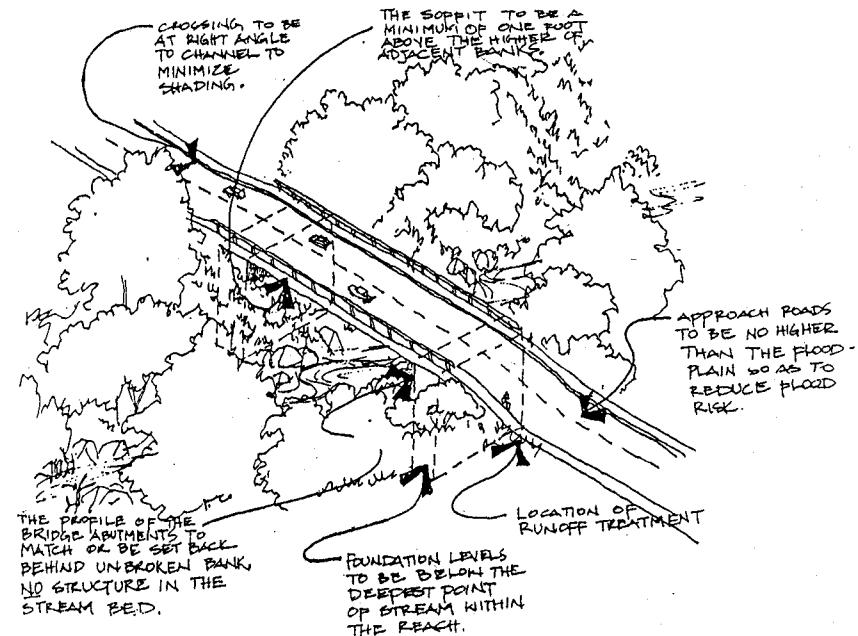
Locating a Crossing

As discussed, stream corridors provide a number of valuable functions. Riparian corridors slow and filter stormwater as it enters the stream system and provide shade for aquatic species like salmon. These corridors also provide habitat and migration routes for amphibians and mammals linking upland and lowland habitats. One of the impacts of crossings is to the riparian corridor. Efforts should be made to locate crossings in areas where riparian habitat is already degraded avoiding high quality buffer zones. If no suitable area exists impacts should be minimized by crossing the stream corridor at a right angle while keeping the R.O.W. as narrow as possible.

Design Principles for Stream Crossings

Presented before is an illustration of a model stream crossing. A clear span bridge is the ideal type of crossing, however culvert crossings may be more of a reality. Culvert crossing should follow the same principles as shown below, namely adequate height and width. The culvert should be bottomless and span as much of the stream corridor itself, as opposed to just the stream channel itself.

TO BE FURTHER DEVELOPED





PORT OF PORTLAND

Box 3529, Portland, Oregon 97208
503-944-7000

MEMORANDUM

Date: April 5, 2001

To: Mayor Vera Katz
Commissioner Jim Francesconi
Commissioner Charlie Hales
Commissioner Dan Saltzman
Commissioner Erik Sten

From: Mike Thorne, Executive Director
Port of Portland

Re: April 10, 2001 City Council Informal on PDX Land Use Approvals

BACKGROUND

In 1977, the City of Portland annexed Portland International Airport (PDX) into its boundaries. Since annexation, the Port of Portland has operated PDX under a conditional use approval from the City of Portland. The City granted PDX its first conditional use approval in 1979 with subsequent conditional use approvals in 1985, 1986, and 1993.

All conditional use permits have been based on long-term master planning efforts for PDX. Typically, a master plan is completed every five years and has a 30-year timeframe. All master plans are based on growth forecasts and analysis at a high level and are, therefore, conceptual in nature. Actual development of public facilities at the airport, such as terminals and parking lots, requires much more detailed planning and analysis of costs, impacts, and trade-offs and is triggered by exceedence of pre-established capacity thresholds, not growth forecasts. Over the years, there have been some significant changes from conceptual master plans to final construction of facilities.

The most recent master planning process for PDX culminated in September 2000 with the Port Commission's adoption of the 2000 Master Plan. Based on projected growth in regional air travel through 2020, this master plan contained conceptual designs for significant expansion at PDX, including a third parallel runway and new decentralized passenger terminal parallel to the existing terminal. Facilities such as the proposed third parallel runway and decentralized terminal are far off in the future and are not the subject of the proposed land use application under discussion now.

In adopting the 2000 Master Plan, the Port Commission committed to pursue strategies for capacity preservation at PDX, as recommended by the Regional Air Transportation Demand Task Force. These capacity preservation strategies included: coordination of air service with other regional airports, support for high speed passenger rail in the I-5 corridor, relocation of the military, potential for cargo handling at other airports, terminal and runway

demand management. The Commission also made a commitment to further environmental planning to evaluate the impact of the proposed expansion on the environment and outlined a program of follow-on studies on noise, water quality, air quality, and other National Environmental Policy Act compliance requirements.

The 1993 conditional use approval for PDX, which is based on a 1992 master plan, is scheduled to expire in August 2003 although the full build-out of the 1992 master plan has not yet occurred. We anticipate submitting a new conditional use application to the City in Spring 2002.

SCOPE OF PDX LAND USE APPLICATION

With the Port Commission's recent adoption of the 2000 Master Plan for PDX, there has been significant public concern that the Port will be asking the City for approval for the full build-out of this concept plan. That concern is based on a misunderstanding. Although the Commission adopted the full Master Plan to provide a framework for thinking through short-term actions that might have implications 15 or 20 years hence, the Commission has only authorized staff to submit to the City a more modest land use application, focusing on the projected 10-year build-out of the 2000 Master Plan. This application will be substantially similar to the conditional use the City approved for PDX in 1993, with build-out of the existing terminal building to the east and transportation enhancements such as parking lot expansions and roadway improvements. It will not include a request for approval of a third parallel runway or a decentralized terminal.

The Port Commission's decision to pursue a more modest land use application is based on:

- Recognition of community concerns regarding the third parallel runway and new passenger terminal concepts included in the 2000 Master Plan,
- Need for significant environmental study before future phases of the 2000 Master Plan can be confirmed,
- Need to extend our existing passenger terminal before deciding on new terminal areas, and
- Commitment to Regional Air Transportation Demand Task Force to pursue capacity preservation at PDX.

LAND USE APPROVAL OPTIONS

Port staff evaluated both the plan district and conditional use options for pursuing City land use approvals for PDX. We understand based on our discussions with the Airport Issues Roundtable (AIR) that they will be advocating for a plan district approach. While permanent zoning status for the airport makes sense once a more permanent configuration for PDX is settled upon, Port staff concluded there are too many challenges associated with this approach at this time.

First, the Port has not fully studied the impacts of the third parallel runway or decentralized terminal. The long-term configuration of future expansions may differ substantially from the 2000 concept plan. As a result, a plan district would provide only a short-term legislative acknowledgement of airport development, similar to the 10-year designation under a conditional use. Pursuing more permanent zoning for the airport only makes more sense once the Port has greater certainty regarding the long-term configuration of PDX.

Second, the process for a plan district is less time certain than for a conditional use and there is limited time available to secure such approval (August 2003). Despite the Port's decision to pursue a more modest application, we fully expect concerns regarding long-term expansion at PDX to surface in whatever process we pursue. We are comfortable with this debate, but not comfortable risking a lapse in land use approvals associated with an extended debate that may occur through the plan district process. Our estimate is that it will be December 2002 before we will have a new conditional use permit in place. By all accounts, a plan district would take much longer.

Finally, given the very limited changes to previously approved plans that we are asking the City to approve at this time, the more costly and time intensive plan district approach does not seem warranted.

CITY REQUEST AND PORT COMMITMENT TO COMMUNITY

For these reasons, it is the preliminary recommendation of Port staff – not yet confirmed by the Port Commission – that a conditional use is the most appropriate land use approval to pursue for PDX in the near term.

As we have reinforced in our discussions with AIR and PDX Citizen Noise Advisory Committee (CNAC) members, we believe we can achieve an acceptable approach to proceeding with near-term development at PDX that balances regional transportation needs with community livability concerns. We hope to accomplish this through the early engagement of stakeholders (City bureaus, AIR, CNAC, Columbia Slough Watershed Council, Audubon Society, adjacent neighborhoods) in the development of the conditional use application and impact study review. We are comfortable with an extension of the 120-day review period to help resolve any additional concerns with our application.

We also are committed to exploring ways to reduce noise impacts on the community. PDX has an ongoing noise abatement program that includes CNAC, noise tracking and response, flight path adjustments, construction of a \$7.8 million engine run-up facility, review of all noise developments for noise impacts, and advocacy for quieter aircraft engines. Shortly, we will be undertaking an 18-24 month planning effort to measure the impacts of noise on the community and to develop strategies for reducing these impacts. Although this study will extend beyond the 2002 land use application submission, there will be an extensive community involvement component of this work. We hope this effort will help us strengthen our existing noise abatement program through additional flight path adjustments, a noise insulation program, and improved use of technology to reduce noise impacts. The

noise impact analysis work included in this planning effort will also be factored into our conditional use application.

In addition, we plan to pursue capacity preservation strategies recommended by the Regional Air Transportation Demand Task Force and engage a similar group of stakeholders in the review of longer term environmental studies. Finally, we are committed to exploring a legislative approach to future land use approvals within five years of approval of the new PDX conditional use.

We expect to seek Port Commission approval of the proposed conditional use approach at our May 9 Commission meeting.

We look forward to the Council's informal discussion of this important issue at the April 10 Council informal session. Due to a legislative schedule conflict, I regret that I will be unable to attend this session. If you have questions, please contact David Lohman, Policy and Planning Director, at 944-7048.

c: David Lohman
Steve Schreiber
Port Commissioners



PORT OF PORTLAND

Executive Summary **Container Transportation Cost-Benefit Analysis**

December 2000

The Port of Portland's mission is to "provide competitive cargo and passenger access to regional, national, and international markets while enhancing the region's quality of life." To better measure the Port's success in meeting one aspect of this mission – providing competitive access to world markets to the region's container cargo shippers – the Port hired HDR Engineering, Inc. to study the cost benefits of container transportation provided by regular steamship service in the Portland Harbor through the Port's Terminal 6 facilities.

As part of this study, HDR developed a model that estimates the net benefit to regional container shippers resulting from Portland container operations. The model compares the transportation costs faced by these shippers today ("with Portland container service" scenario) with the costs they would face using their least expensive shipping option in the absence of a Portland service ("without Portland container service" scenario), the difference representing the net shipper benefit. Because of the existence of Portland container service, ocean carriers in the Puget Sound must equalize transportation rates in order to be competitive. Consequently, benefits measured in this study are derived from both the lower transportation costs for those regional shippers using Portland container facilities and the reduced rates enjoyed by those using Puget Sound container facilities.

The study categorizes benefits by commodity type and location, providing the Port with a tool for estimating not only the overall value of Port container facilities, but also the extent to which these benefits accrue to specific geographic areas and producer groups. The study further provides the Port with a model of regional freight flows and the ability to identify specific companies involved in the import and export of containers. This information will aid the Port in its transportation planning efforts and enable the Port to better tailor its services to meet regional shipper needs.

Findings

Portland container operations save Pacific Northwest businesses nearly \$68 million in transportation costs annually (1999).

- The shipment of export cargo accounts for \$54 million (76 percent) of the shipper benefit, and import cargo accounts \$14 million (24 percent).

Oregon shippers realize nearly \$53 million dollars in transportation cost savings annually by shipping container cargo via Portland as opposed to more distant ports.

- Twenty-eight out of Oregon's 36 counties receive benefit from Portland container facilities.
- The remaining benefits are split between Washington (\$5.4 million) and Idaho shippers (\$5.0 million).

Portland container operations benefit both urban and rural communities in the region, north and south, east and west.

- Shippers in the four county Portland-Vancouver metropolitan area receive \$16.6 million (24 percent) of the benefits. Multnomah County receives \$10 million, the most of any county.
- The remaining \$51 million of transportation costs savings is distributed to shippers throughout the Pacific Northwest, most in rural areas.

- Agricultural and wood products account for the majority of benefits although Portland container service provides benefit to a diverse set of commodities.

Top 15 Counties Benefiting Portland Container Operations						
Rank	County	Shipping Cost with Portland	Shipping Cost w/o Portland	Shipper Benefit		
				Import	Export	Total
	Total	\$59,667,906	\$127,591,913	\$13,935,870	\$53,988,136	\$67,924,006
1	Multnomah, OR	\$ 4,689,955	\$ 14,619,268	\$ 4,894,650	\$ 5,034,663	\$ 9,929,313
2	Marion, OR	\$ 5,827,050	\$ 15,547,358	\$ 81,598	\$ 9,638,710	\$ 9,720,307
3	Lane, OR	\$ 5,237,854	\$ 13,717,240	\$ 161,544	\$ 8,317,842	\$ 8,479,386
4	Umatilla, OR	\$ 3,914,863	\$ 9,038,875	\$ 330	\$ 5,123,682	\$ 5,124,012
5	Linn, OR	\$ 2,479,568	\$ 7,263,646	\$ 171,417	\$ 4,612,662	\$ 4,784,078
6	Clackamas, OR	\$ 2,187,803	\$ 6,015,635	\$ 2,466,390	\$ 1,361,442	\$ 3,827,832
7	Nez Perce, ID	\$ 2,406,055	\$ 6,066,249	\$ -	\$ 3,660,194	\$ 3,660,194
8	Morrow, OR	\$ 2,287,758	\$ 5,089,146	\$ 11,314	\$ 2,790,075	\$ 2,801,388
9	Washington, OR	\$ 1,200,579	\$ 3,267,340	\$ 832,207	\$ 1,234,555	\$ 2,066,762
10	Jackson, OR	\$ 1,779,873	\$ 3,609,459	\$ 1,682,565	\$ 147,021	\$ 1,829,586
11	Franklin, WA	\$ 2,038,582	\$ 3,439,345	\$ 8,192	\$ 1,392,571	\$ 1,400,763
12	Yamhill, OR	\$ 760,330	\$ 2,027,383	\$ 5,578	\$ 1,261,474	\$ 1,267,052
13	Whitman, WA	\$ 1,024,004	\$ 2,188,448	\$ -	\$ 1,164,444	\$ 1,164,444
14	Cowlitz, WA	\$ 4,353,624	\$ 5,375,890	\$ 50,627	\$ 971,638	\$ 1,022,266
15	Clark, WA	\$ 407,013	\$ 1,169,142	\$ 484,804	\$ 277,324	\$ 762,128
	All Other	\$19,072,994	\$ 29,157,489	\$ 3,084,656	\$ 6,999,839	\$10,084,494

For a complete copy of the study, please contact: Aaron Ellis, Maritime Public Affairs Manager, at 503-944-7054.

COMMITTEE TITLE JPACT

DATE 4-12-01

NAME

AFFILIATION

Alshpus	metn
Rad Monroe	Metro Council
CHARLIE HALE	Portland
Bill Conner	CLACKAMAS Co
ROB DRAKE	CITIES OF WASHINGTON CO.
KARL RICHIE	C ³
Rex Burkholder	Met Metro Council
CRAIG PRIDEMORE	CLARK Co.
Joan Kagit	4-cities E. County
Don Wagner	WSDOT
Kay Van Auker	ODOT
Paul Linn	PORT
R E. Follard	VANCOUVER
Stephanie Hallock	DEQ
Roy ROGERS	WASH. County
Rod Park	Metro Council
FRED HANSEN	TRI-MET
Lynn Peterson	Tn-Met

Please continue on the next page . . .

COMMITTEE TITLE JPACT p. 2
DATE 4/12/01

NAME

AFFILIATION

Alan Lehto	Tri-Met
Neil McFarlane	" "
Pat Collmeyer	Goldschmidt Ineson
Tamara Clark	ODOT
David Brydson	Metro Council
Michael Hoglund	Metro
Leo Huff	ODOT
Deb Wallace	WSDOT
Grady Edwards	Westside Transp. Alliance
Mary Leguy	WSDOT
Don Skene	XTC
Patti Seastrom	DEQ
Dege Nordberg	DEQ
Annette Kibel	DEQ
Gregg Labscene	Pat
Andy Ginsburg	DEQ
Bernie Bittman	Tri-met
Martha Bennett	City of Milwaukee

COMMITTEE TITLE JPACT

DATE 4/12/01

NAME

AFFILIATION

Bechie Lee

Ross Williams

LOUIS A ORNEAR

Steve Kelley

Richard Fowler

Dave Cowens

STEVE DOTTERMAN

Brian Newman

ROBERT PAINE

Ron Papsdorf

John Aick

Karen Schilling

Mult. County - Screna Cruz's Ofc.

CLF/CST

OHSC

Washington County

metro

GS Warriors

CITY OF PORTLAND STAFF

Milwaukie - clackamas Cities Alternate

MULTI Co. DIST #4

City of Gresham

clackamas County

Multnomah County